

**A REVIEW OF THE USE OF
SECTION 401 WATER QUALITY CERTIFICATION
TO MEET CONDITIONS OF THE
GEORGIA'S COASTAL NONPOINT SOURCE
PROGRAM**



Photo Credit: James Holland

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EXECUTIVE SUMMARY

Georgia's Department of Natural Resources (GADNR) Environmental Protection Division (EPD), in conjunction with the Coastal Resources Division (CRD), has been working on the development of Georgia's Coastal Nonpoint Source (NPS) Program since 1999. Georgia's Coastal NPS Program will implement a wide variety of management measures designed to control and prevent nonpoint source pollution from impacting the critical coastal environment. Obtaining final approval of the Coastal NPS Program is the first step in establishing that program and goal.

Georgia's proposed program was reviewed by the U.S. Environmental Protection Agency (EPA) and National Oceanic and Atmospheric Administration (NOAA) and received conditional approval in 2002. To receive final approval of Georgia's Coastal NPS Program, the State must address identified program deficiencies. Final approval of Georgia's program is required for the State to continue receiving full funding under both the Coastal Zone Management Act (CZMA) and the Clean Water Act (CWA) 319(h) nonpoint source program.

Within the 2002 findings, NOAA and EPA specifically stated that "*the 401 water quality certification program may provide a mechanism for ensuring that State water quality standards are imposed for freshwater projects, as well as any other activity requiring a Federal permit.*" (page 17). They also stated that "...NOAA and EPA continue to have questions about whether Georgia's 401 certifications are sufficient to cover all required activities and whether the State has back-up authority that can be used by the State to enforce conditions or revoke certification." Further, NOAA and EPA stated the following:

Georgia's program also relies upon the use of CWA section 401 certification to meet program requirements, particularly for hydromodification and wetlands and riparian areas. As discussed in the Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section §6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), NOAA and EPA will approve the use of section 401 certifications to meet program requirements where States can demonstrate the following:

- 1. The certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed;*
- 2. There is a back-up authority (e.g., water quality authority) that can be used, as described above, by the State to enforce conditions or revoke certification; and*
- 3. The State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met (page 23).*

Section 401 of the Clean Water Act requires that any applicant for a federal license or permit to conduct any activity that “may result in any discharge” into navigable waters must obtain a certification from the state in which the discharge originates that the discharge will comply with various provisions of the Clean Water Act. The federal license or permit may not be issued unless the state has granted or waived certification. The certification shall include conditions, e.g., “effluent limitations or other limitations” necessary to assure that the permit will comply with the state’s water quality standards or other appropriate requirements of state law. Such conditions must be included in the federal license or permit.

As an important component in Georgia’s overall strategy to gain full Coastal NPS Program approval and to successfully implement coastal nonpoint source measures, the tool of 401 water quality certification may be highly effective for addressing a number of hydrologic, urban development and watershed conditions. The objective of the report is to detail findings and identify opportunities to fully utilize 401 water quality certification to lift coastal nonpoint source program conditions in Georgia. Due to the Coastal NPS Program conditions, EPA has been consulted on this report and the use of 401 to meet coastal management measures.

The following subject matter is discussed within the document:

- Introduction of CZMA, Georgia’s Coastal NPS Program, and need to address 401 along coastal Georgia;
- Basics of Section 401 water quality certification;
- Scope of Section 401 water quality certification process;
- The role of Georgia’s Water Quality Standards in the state 401 water quality certification process;
- Georgia’s 401 Water Quality Certification Process;
- Provisions of Georgia State Laws in the 401 Water Quality Certification Process;
- State Enforcement Capabilities under 401
- 6217 CZARA management measures relative to Georgia’s coastal 401 review
- Opportunities to Increase the Utilization of 401 Water Quality Certification in Georgia’s Coastal Nonpoint Source Program.

The following is a summary of some of the activities that are recommended to make 401 water quality certification a more effective tool to protect wetland, stream and riparian habitats in coastal Georgia. The State of Georgia can undertake many of these activities immediately which will provide the groundwork for improving future 401 certification decisions. The actions suggested below are specifically addressed in Chapters 8-10.

State Water Quality Standards with Emphasis on Wetlands and Riparian Areas:

1. The State of Georgia's definition for "wetlands" is found on page 94 of the current standards (Revised – November 2005) under Section 391-3-6.17(qq) entitled "Sewage Sludge (Biosolids) Requirements". This definition should be moved and be explicitly incorporated within the definition of "waters" under Section 391-3-6-.03(l) in Georgia's water quality standards (page 8 of current standards). As a result, tidal and nontidal wetlands will be clearly and specifically defined and designated as surface waters of the State of Georgia.
2. The State of Georgia should incorporate a more comprehensive "antidegradation policy" into the State's existing policy. Additionally, the 401 water quality certification program should be incorporated into the language of the State's updated antidegradation policy. Such implementation would not only strengthen the State's 401 water quality certification program but also improve the antidegradation intent and language.
3. The State should develop and implement water quality standards that protect the full range of coastal wetland functions.
4. The State should modify its existing water quality standard regulations to accommodate special wetland considerations. More specifically, EPD should identify and designate coastal wetlands and other biologically significant coastal waterbodies as Outstanding Resources Waters (ORWs). Although Georgia mentions ORWs in the State's water quality standards (see Chapter 4), no actual ORWs are identified. These designated waters can become a much larger part of the State's overall antidegradation and nonpoint source pollution effort along the coast.
5. The state should continue to make more effective use of its existing narrative water quality standards (including the antidegradation policy) to protect the integrity of wetlands and other coastal waters.

Programmatic:

1. Hire a 401 water quality certification staff for the coastal area to work closely with the State 401 Coordinator, EPD coastal and statewide Nonpoint Source Management Staff, CRD, and federal and state programs to address projects affecting coastal and estuarine waters of Georgia.
2. Implement a GIS tracking system to monitor project compliance with 401 water quality certification conditions.
3. The GADNR/EPD, in coordination with CRD, should develop a "Coastal 401 Water Quality Certification Program Scope and Strategy" document. The document would identify the program scope and collective vision for an effective program, articulate program goals and objectives, and guide the joint activities of EPD's 401 water quality

certification program, nonpoint source program and erosion and sedimentation program and CRD's coastal management program into an effective coastal water quality certification implementation.

4. The GADNR/EPD should develop a "Coastal Georgia Section 401 Water Quality Certification Guidance Document" to improve internal management of the program, assist in maintaining consistent coastal- and state-wide approaches to 401 certification, and provide applicants with information that may be helpful in completing their 401 water quality certification application.

5. The State should develop regulations and guidelines for its 401 water quality certification to clarify the program, codify the criteria and decision process, provide consistency and predictability, and incorporate special wetland considerations into the more traditional water quality approaches.

Task 6. The State should review existing State 401 standard conditions and create and incorporate more comprehensive coastal 401 water quality certification standard permit conditions to protect coastal water quality and habitat for various federal projects that are proposed throughout the coast. In addition, staff should review and incorporate into certifications the coastal nonpoint source management measures including, but not limited to, urban new and existing development, watershed management, wetlands and riparian areas, and hydromodification.

7. The State should consider implementing application fee requirements in addition to other sources of funding. These fees (or portions of the fees) should be dedicated to budget coastal and other 401 staff positions statewide.

8. The "Operating Agreement between the U.S. Army Corps of Engineers, the Georgia Department of Natural Resources Environmental Protection Division and Coastal Resources Division" should be finalized and implemented.

9. The State should develop and implement a comprehensive freshwater wetland protection component to the coastal 401 certification program.

10. The State should initiate and improve upon existing inventories of its coastal wetland resources.

11. EPD should develop a "401 Water Quality Certification" webpage which may provide the following: applications and pre-application guidelines, wetland governing statutes, general information and policies, wetland and stream mitigation, buffer rules, guidance documents, stormwater, ACOE nationwide permits and regional conditions, standard 401 conditions developed for coastal projects, projects and activities of concern, and links.

12. Continue to develop and improve upon a process for state agency review of projects under Section 401/404 permit program during the planning and design stage rather than after the plan/design is complete.

Coastal Nonpoint Source Management Measures:

Protection of Wetlands and Riparian Areas

1. Where allowed by law, establish, maintain, and strengthen regulatory 401 review and enforcement to protect wetland functions.
2. The State should restrict direct conveyance of stormwater into natural wetlands.
3. During the review of proposed 404 projects, encourage the applicant to obtain easements or full fee acquisition rights for wetlands, riparian areas along streams and estuaries and state owned tidal wetlands. Freshwater wetlands should be a priority.
4. Manage activities that have negative impacts on wetlands and riparian areas through enhanced local coastal Georgia zoning and protective ordinances (e.g., buffer ordinances) implementation. The GADNR and its partners are continuing to work with local governments to develop, pass, and implement natural resource conserving zoning and other protective ordinances.
5. The State should designate uses for wetlands based on wetland functions associated with each wetland type. Such estimated uses could be verified when needed for individual applications with an assessment tool such as the Wetland Evaluation Technique, or Habitat Evaluation Procedure, or region-specific evaluation methods.
6. Serve on a committee to develop landowner guides for wetland protection and management.

Restoration of Wetlands and Riparian Areas

7. Promote the restoration of the pre-existing functions in damaged and destroyed jurisdictional and non-jurisdictional wetlands and riparian systems in areas where the systems will serve a significant nonpoint source pollution abatement function.
8. In concert with Task 7, coordinate with and develop a document with Savannah District COE, USFWS, EPA, and NMFS, GADNR/WRD and Fisheries on stream restoration in coastal Georgia.
9. During review of proposed 404 projects, identify opportunities and encourage applicants to set aside and restore wetlands and riparian areas.
10. Where appropriate during 401 certification review, utilize mitigation banking opportunities as a means of achieving environmentally and economically sound

mitigation for unavoidable and minimized impacts to waters of the State, including wetlands.

11. Once established, the Coastal 401 staff should participate and serve on the Savannah District's COE Mitigation Banking Interagency Review Team.

Vegetated Treatment Systems

12. Where appropriate, promote the use of engineered Vegetated Treatment Systems (VTSs) such as constructed wetlands or vegetated filter strips (VFSs) where these systems will serve a significant nonpoint source pollution abatement function and prevent adverse impacts on water quality and wetland function that affect NPS pollution abatement. Recommend the construction and maintenance of VFS in upland areas adjacent to water bodies that may be subject to suspended solids and/or nutrient runoff.

Urban Runoff – New Development

13. During review of proposed Section 404 permits, condition 401 certifications to implement coastal stormwater management post-construction BMPs consistent with the Georgia Stormwater Manual as amended for coastal Georgia ("Coastal Stormwater Supplement").

14. Where possible during early 401 certification review, encourage the applicant to consider implementing the *Green Growth Guidelines* and/or the *UGA MAREX Green Coast Certification Program's* procedure and criteria.

Urban Runoff – Site Development

15. Where possible during 401 certification review and the applicant's site development process, encourage the applicant to incorporate site development objectives as described in the *Georgia Green Growth Guidelines*, *Georgia Coastal Stormwater Supplement and ordinance*, *UGA MAREX Green Coast Certification Program*, and *EPA 2005 Urban Guidance*.

16. During the 401 certification review process, coordinate closely with EPD's erosion and sedimentation staff to ensure adequate implementation of erosion and sedimentation practices in the proposed federal permitted or licensed project.

Urban Runoff – Roads, Highways and Bridges

17. In concert with Chapter 9's Task 7, seek to obtain and utilize Department of Transportation (DOT) funds to provide 401 certification review of GADOT projects.

Hydromodification - Channelization and Channel Modification

18. During the 401 certification process, require the evaluation of the environmental sequences of hydromodification projects. Request the utilization of models/methodologies as one means to evaluate the effects of proposed channelization and channel modification projects on the physical and chemical characteristics of surface waters.

19. During the 401 certification review process, require the implementation of management practices to avoid or mitigate the physical and chemical impacts and instream and riparian habitat restoration generated by hydromodification projects. This may be achieved through the protection of existing uses.

20. During 401 certification review, require the applicant to assess the biological impacts of channelization.

Hydromodification – Dams

21. During the 401 certification review process for dams, require that the applicant prepare and implement an approved erosion and sediment control plan.

22. During the 401 certification review process for dams, require that the applicant provide a Spill Prevention and Control Program.

23. During the 401 certification review of dams, require the applicant to implement the appropriate national nonpoint source pollution management measure practices in order to protect surface water quality and instream and riparian habitat from dam operation, maintenance and removal.

Hydromodification – Streambank and Shoreline Erosion

24. During 401 certification review, require nonstructural practices, where appropriate, to stabilize and protect streambank and shoreline features from erosion.

25. During 401 certification review, require structural practices, setbacks, or an integration of these practices with nonstructural practices, where appropriate, to stabilize and protect streambank and shoreline features from erosion.

26. In an effort to reduce the impact of hydromodification on the State's coastal waters, the 401 water quality certification staff should use several state and federal resources, including the Federal Interagency Stream Restoration Working Group's *Stream Corridor Restoration Handbook* BMPs and the USDA Forest Service's *A Soil Bioengineering Guide for Streambank and Lakeshore Stabilization* for incorporation into 404/401 projects.

Additional Tasks under NOAA/EPA MMs

27. The State should partner with the Natural Heritage Program/Nongame Conservation Section and other appropriate State and federal agencies to identify environmentally sensitive, critical conservation areas.

28. In coordination with other staff of EPD, establish minimum requirements of the watershed management plan, general conditions and minimum BMP requirements, measurable goals, and development and implementation of runoff practices (both structural and nonstructural) where appropriate. Where appropriate, identify and request the necessary implementation requirements of watershed assessments and watershed protection plans during the water quality certification process.

29. The State should partner with the USFWS, NMFS, Natural Heritage Program/Nongame Conservation Section and other appropriate State and federal agencies to identify, map (via GIS) and implement best management practices necessary for the remediation or prevention of habitat loss or degradation of various federal and state threatened and endangered (T&E) flora and fauna associated with CWA Section 303(d)/TMDL Category IB listed priority watersheds. Efforts may also include addressing wetlands or other biologically significant species or communities as resources are available. Integration of these datalayers with a 401 database is strongly recommended. Creation and hiring of a GADNR position to integrate these different GIS efforts is strongly encouraged.

30. Once 30 has been accomplished, a task force should be convened to determine the establishment of minimum site specific hydrologic/habitat modification easements or greenways for streams, other priority waters, and sensitive areas based on slope, soils, and other factors.

31. EPD should promote and implement a centralized statewide and local clearinghouse to provide up-to-date Hydrologic/Habitat modification information. This repository can then be used to ascertain cumulative waterbody and other environmental effects.

32. EPD should seek a stable source of funding to support prioritized Stream Habitat Restoration-Sensitive Area Identification initiatives such as wetlands, streams and other biologically significant species and communities. Coordination with the local USFWS Ecological Services Field Office, NRCS, ACOE and the Natural Heritage Program/Nongame Conservation Section is strongly encouraged.

33. Develop and offer incentives and initiate annual awards and recognition program for developers of innovative projects that incorporate stream and wetland protection practices in new developments. More specifically, encourage the applicant to participate in the *UGA MAREX Coastal Green Certification Program*.

34. Develop green infrastructure connected corridors, greenways or easement plans for Section 303(d) listed segments, other priority waters, and sensitive areas needing protection (in perpetuity) of sensitive, flora, fauna, and other natural resources.
35. Establish a workgroup to develop the definition of a stream and to identify all streams within the counties comprising the Coastal Nonpoint Source Management Area and Area of Special Interest.
36. Identify sections of streams within the coastal counties contributing to nonpoint source pollution due to channelization, channel instability, or excessive streambank shoreline erosion due to adjacent use.
37. Develop Hydrologic/Habitat Modification pollutant TMDLs for applicable Section 303(d) listed waterbodies in coastal Georgia.
38. Develop and have in place pollution prevention measures that target future threats in priority areas along the coast.
39. Promote undisturbed natural groundcover to reduce erosion and sedimentation in Section 303(d) listed waterbodies to promote recovery and/or perpetuation of healthy aquatic organisms. Encourage applicant participation in the UGA MAREX *CoastScapes* and *Coastal Green Certification Program*.
40. Establish a Stream Management and Technical Design Workgroup (SWTDW) to review and make recommendations about technical design standards and specifications for streambank restoration practices.
41. Help to develop model Stream Restoration Regulations including floodplain ordinances that protect natural stream functions for adaption by local planning agencies, municipalities, counties, and local jurisdictions.
42. Promote integration of UGA MAREX CoastScapes conservation landscaping program to promote water conservation and quality, reduced fertilizer and pesticide use, and habitat enhancement.
43. Continue to develop criteria and improve coastal regional conditions for Georgia under Section 401/404 permitting program (including both individual and nationwide permits) to provide more geographically appropriate and consistent conditions/requirements for headwater stream protection.
44. When possible, encourage local governments, nonprofit organizations, and planning agencies to prepare comprehensive land use plans and develop incentives that encourage preservation of wetlands and other environmentally sensitive areas. Provisions to support these efforts are identified in the recently developed Coastal Comprehensive Plan (developed under the Georgia Department of Community Affairs). In addition, addition

incentives are provided through applicant participation in the UGA MAREX *Coastal Green Certification Program*.

45. Consider developing a fine structure, under authority granted for fish kills to include penalties for the killing and taking of mussels, macroinvertebrates, and small fish.

46. In coordination with other DNR programs and state and federal agencies (e.g., NRCS, USFWS), create a voluntary register for properties along headwater streams and coastline for recording voluntary deed restrictions to protect riparian corridors.

47. When applicable, endorse the National Conservation and Reinvestment Act to provide funding (from offshore oil and gas drilling revenues) for habitat protection, and encourage use of funds to protect stream habitats.

48. Utilize transportation funding (SAFETEA-LU) to restore and enhance headwater streams and riparian corridors. Develop demonstration projects in conjunction with highway reconstruction

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A REVIEW OF THE USE OF SECTION 401 WATER QUALITY CERTIFICATION TO MEET CONDITIONS OF GEORGIA'S COASTAL NONPOINT SOURCE PROGRAM

Chapter I. Georgia's Coastal Nonpoint Source Management Program and Section 401 Water Quality Certification

"Our oceans, coastal waters, and estuaries constitute a unique resource. The condition of the water quality in and around the coastal areas is significantly declining. Growing human pressures on the coastal ecosystem will continue to degrade this resource until adequate actions and policies are implemented."

United States Congress, November 1990

The Coastal Nonpoint Source (NPS) Program was established by Congress in 1990 under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). The Coastal NPS Program is jointly administered by the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) on the federal level and by the Environmental Protection (EPD) and Coastal Resources Divisions (CRD) of the Georgia Department of Natural Resources (GADNR) on the state level. The congressional intent of the Coastal NPS Program is as follows:

- Update and expand existing nonpoint source management programs;
- Strengthen links between federal and state coastal management and water quality programs;
- Enhance state and local efforts to manage land use activities that degrade coastal waters and habitats;
- Provide for implementation and effectiveness assessment, at a minimum, of 56 EPA management measures (MM) to control nonpoint source pollution.

With the reauthorization amendments in 1990 of the federal Coastal Zone Management Act of 1972, as amended (CZMA), states with approved coastal management programs were required to develop a corollary comprehensive program to address coastal nonpoint source pollution. Congress enacted section 6217 of CZARA, providing that each state with an approved Coastal Zone Management Program must develop and submit to the EPA and NOAA for approval of a Coastal Nonpoint Pollution Control Program (formal reference for the Coastal NPS Program). The purpose of the program is "to develop and implement management measures for nonpoint source (NPS) pollution to restore and protect coastal waters, working in close conjunction with other state and local authorities."

As stated by EPA, “Coastal Nonpoint Pollution Control Programs are not intended to supplant existing coastal zone management programs and nonpoint source management programs. Rather, they are to serve as an *update* and *expansion* [emphasis added] of existing nonpoint source management programs and are to be coordinated closely with the existing coastal zone management programs. The legislative history indicates that the central purpose of section 6217 is to strengthen the links between Federal and State coastal zone management and water quality programs and to enhance State and local efforts to manage land use activities that degrade coastal waters and coastal habitats. The legislative history further indicates that State coastal zone and water quality agencies are to have coequal roles, analogous to the sharing of responsibility between NOAA and EPA at the federal level.” (EPA Document 840-B-92-002, January 1993).

Section 6217(g) of CZARA required EPA to publish, in conjunction with NOAA, the U.S. Fish and Wildlife Service (USFWS), and other federal agencies, “guidance for specifying management measures for sources of nonpoint pollution in coastal waters.” *Management measures* (MMs) are defined in section 6217(g)(5) as:

Economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint source control practices, technologies, processes, siting criteria, operating methods, and other alternatives.

In 1993, EPA published *Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution in Coastal Waters* (Guidance) (USEPA, 1993). In the 1993 Guidance document, 56 MMs were defined and described to control nonpoint source runoff for six main sources:

- urban areas (including new and existing development, watershed protection, roads and bridges, septic systems);
- agricultural sources;
- forestry;
- marinas and recreational boating;
- hydromodification (channelization and channel modification, dams, and streambank and shoreline erosion);
- wetlands, riparian areas, and vegetated treatment systems.

The overall Coastal NPS Program focus is on pollution prevention rather than cleanup. In general, the program encourages pollution prevention efforts at a local level, particularly with improvements to land use planning and zoning practices to protect coastal water quality. Recommended practices include:

- preserving natural vegetation;
- avoiding development within sensitive habitats and erosion-prone areas; and
- limiting impervious surfaces such as pavement, decking, and roof tops to the maximum extent practicable.

Throughout the country, state Coastal NPS programs can implement the measures and provide accountability through a variety of tools including, but not limited to statutes and rules, ordinances, voluntary approaches, educational campaigns, and financial incentives. However, *all these tools must be backed by enforceable policies and mechanisms*. In addition, state Coastal NPS programs must also have a monitoring and tracking component to assess management measure implementation and effectiveness.

All coastal and Great Lakes states and territories, which participate in the Coastal Zone Management Program, are required to develop coastal nonpoint pollution control programs. The primary incentive to develop Coastal NPS Programs is retention of *full* funding of Coastal Zone Management Funds and Section 319 Statewide NPS Funds.

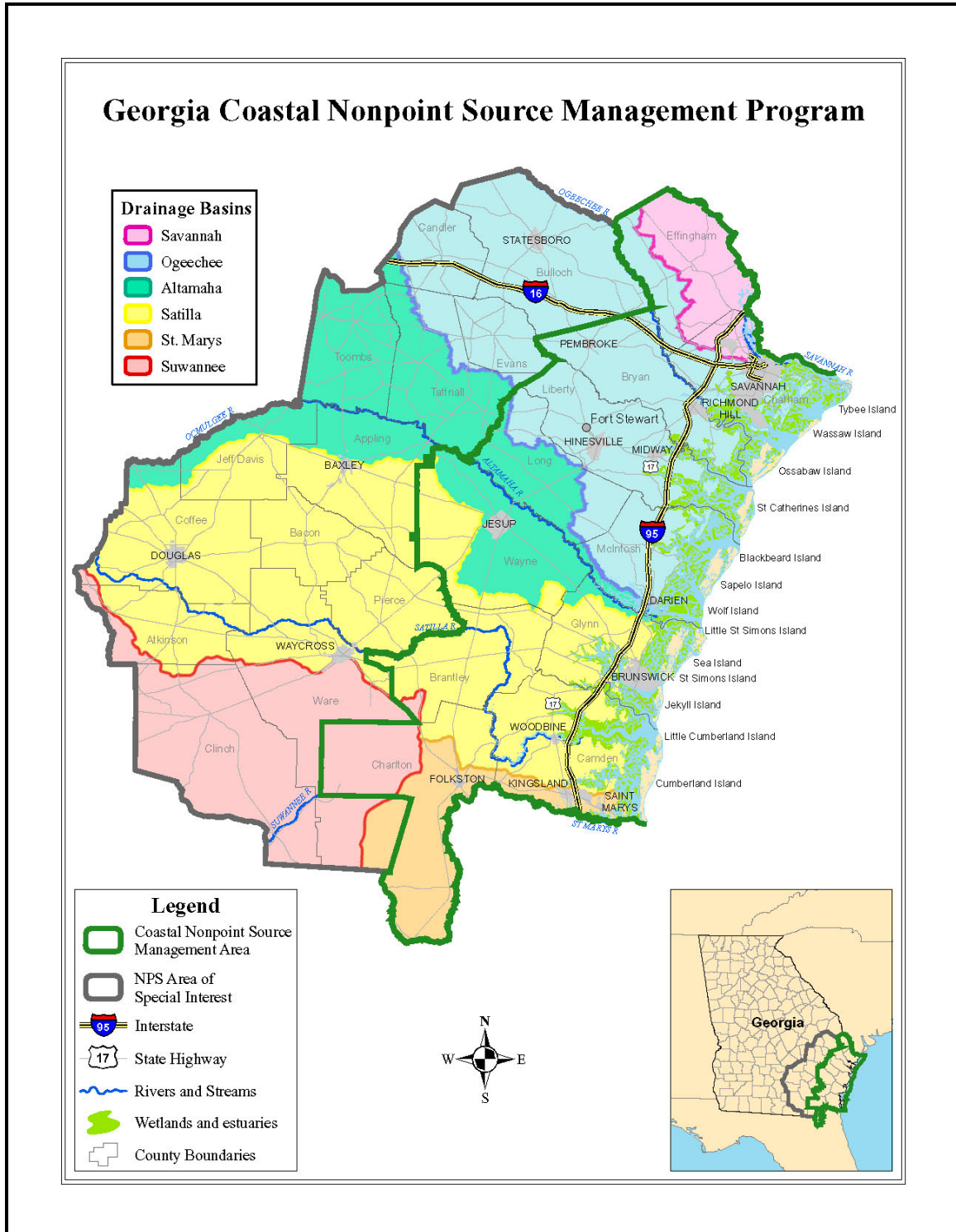
Georgia's Department of Natural Resources EPD, in conjunction with the CRD, has been developing Georgia's Coastal NPS Program since 1999. Georgia's Coastal NPS Program is implementing a wide variety of approved management measures designed to control and prevent nonpoint source pollution from impacting the critical coastal environment. Obtaining final approval of the Coastal NPS Program is the first step in establishing that program and goal. Georgia's coastal NPS management area consists of the 24 county EPD coastal district (Figure 1).

The Coastal NPS Program is a vital element of Georgia's Coastal Zone Management Program and Statewide Nonpoint Source Program and works with sister DNR Divisions, state, local and regional agencies, organizations, and other partners to develop, promote, and enhance voluntary and regulatory programs and projects to control nonpoint source pollution.

Georgia's Coastal NPS Program has specific federal mandates to:

- Identify land uses which, individually or cumulatively, may cause or contribute significantly to a degradation of (a) coastal waters where there is a failure to attain or maintain applicable water quality standards or protect designated uses, or (b) coastal waters that are threatened by reasonably foreseeable increases in pollution loadings from new or expanding sources;
- Identify critical coastal areas adjacent to coastal waters;
- Implement additional management measures applicable to land uses and areas identified under the first two bullets, that are necessary to achieve and maintain applicable water quality standards and protect designated uses;
- Establish mechanisms to improve coordination among State and local agencies and officials responsible for land use programs and permitting, water quality permitting and enforcement, habitat and wildlife protection, and public health and safety;
- Provide technical assistance to local governments and the public to implement management measures;

Figure 1. The Coastal Georgia Nonpoint Source Management Area



- Provide opportunities for public participation in all aspects of the program; and
- Propose to modify State coastal zone boundaries as necessary to implement NOAA's recommendations to more effectively manage land and water uses to protect coastal waters and habitats.

The program benefits from and works to ensure coordination of coastal nonpoint efforts through quarterly meetings of the *Coastal Nonpoint Advisory Taskforce* made up of representatives from the GADNR EPD, GADNR CRD, University of Georgia Marine Extension Service (UGA MAREX), the Department of Health, the Department of Community Affairs (DCA), University of Georgia River Basin Center (UGA RBC), Coastal Georgia Regional Development Center (RDC), Chatham-Savannah Metropolitan Planning Commission (MPC), GADNR Wildlife Resources Division (WRD), and other organizations as specific issues are considered.

Georgia's proposed Coastal NPS Program was reviewed by EPA and NOAA and received conditional approval in 2002. To receive *final* approval of the program, the State must address identified program deficiencies. Key coastal nonpoint source area deficiencies included agriculture, urban, hydromodification, and monitoring/tracking. Final approval of Georgia's program is required for the State to continue receiving full funding under both the CZMA and the Clean Water Act (CWA) 319(h) nonpoint source program.

Within the 2002 findings, NOAA and EPA specifically stated that "*the 401 water quality certification program may provide a mechanism for ensuring that State water quality standards are imposed for freshwater projects, as well as any other activity requiring a Federal permit.*" (Section VI.A).

They also stated the following:

The Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section §6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) addresses the use of the §401 certification process. NOAA and EPA will approve those program elements for which States have proposed the use of §401 certifications where States can demonstrate the following: (1) the certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed; (2) there is a back-up authority that can be used by the State to enforce conditions or revoke certification; and (3) the State has the monitoring system or other tracking methods by which to access whether permit conditions have been met. Although Georgia has provided information addressing points (1) and (2) above, NOAA and EPA continue to have questions about whether Georgia's 401 certifications are sufficient to cover all required activities and whether the State has back-up authority that can be used by the State to enforce conditions or revoke certification." (Section VI.A.)

Further, NOAA and EPA stated the following:

Georgia's program also relies upon the use of CWA section 401 certification to meet program requirements, particularly for hydromodification and wetlands and riparian areas. As discussed in the Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section §6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), NOAA and EPA will approve the use of section 401 certifications to meet program requirements where States can demonstrate the following:

- 1. The certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed;*
- 2. There is a back-up authority (e.g., water quality authority) that can be used, as described above, by the State to enforce conditions or revoke certification; and*
- 3. The State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met (Section XIV).*

For clarification, “back-up authority” and “back-up enforceable mechanisms” indicate that the state of Georgia must be able to demonstrate the capacity to regulate nonpoint sources should the voluntary approaches fail to protect critical resources.

As a portion of Georgia's strategy to address the conditional approval, Georgia has dedicated 319 funding to hire a coastal GADNR EPD 401 water quality certification staff to work closely with the State GADNR EPD 401 Water Quality Certification Coordinator, EPD Nonpoint Source Management Staff, CRD, and federal programs to address projects affecting coastal and estuarine waters. Currently, Georgia has only one water quality certification coordinator to manage water quality certification for the entire state. In addition, the funding would include the development and implementation of an enhanced tracking system with a geospatial component to monitor compliance with conditions imposed upon federal 404 projects.

As an important component in Georgia's overall strategy to successfully implement coastal nonpoint source measures (and to gain full program approval), the 401 water quality certification tool will be highly effective for addressing a number of hydrological, urban development, wetlands and riparian areas, and watershed conditions. Therefore, the objective of this report was to detail findings and identify opportunities to fully utilize 401 water quality certification to lift coastal nonpoint source program conditions. More specifically, the development and writing of the report entailed the following:

- Researching and summarizing other states' innovative use of 401 water quality certification with particular emphasis on coastal nonpoint management measures; and
- Identifying opportunities to enhance the use of 401 water quality certification to address nonpoint source issues for improved protection of Georgia's coastal waters and aquatic habitats.

Chapter 2. Clean Water Act: Section 401 Water Quality Certification and 40 C.F.R. Part 121

The overall goal of the Federal Clean Water Act (CWA) is to “restore and maintain the physical, chemical and biological integrity of the nation’s waters.” In general, the CWA serves as the framework for making the nation’s waters “fishable and swimmable”.

Section 401(a) of the Clean Water Act (Attachment 1) provides the States a powerful tool to protect their State’s waters. The language in the section allows the States to review and ensure that a project will not cause violations of State water quality standards. In addition, the States can impose any special conditions they feel are necessary to accomplish these requirements. Most importantly, if the State denies or revokes certification, the federal permit or license cannot be issued.

2.1 Types of Permits

Water quality certification under Section 401 applies to federal permits or licenses which may result in a discharge to *navigable waters* (North Carolina vs. FERC; Oregon Natural Desert Association v. Dombeck). **The purpose of the certification is to certify that the activity and subsequent operation will comply with state water quality standards, namely protect designated uses, meet criteria, and comply with the state’s antidegradation policy.**

Section 401 water quality certification applies to any project that requires a *federal* license or permit under the Clean Water Act and includes the following:

1. Permits issued by the U.S. Army Corps of Engineers (ACOE) under Section 404 of the Clean Water Act (in GA, this is the most common type of permit for which certification is necessary);
2. National Pollutant Discharge Elimination System (NPDES) permits issued by the EPA under Section 402 of the Clean Water Act;
3. Permits issued under Sections 9 and 10 of the Rivers and Harbors Act (for activities that may affect navigation);
4. Licenses for hydroelectric power plants issued by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act; and
5. Licenses issued by the Nuclear Regulatory Commission (NRC).

2.2 Who Provides the Certification

Section 401 water quality certification is provided from the state where the discharge originates. If the facility is in one state and the discharge point is in another state, the certification comes from the state where the discharge is located (National Wildlife Federation v. FERC; Lake Erie Alliance for Protection of the Coastal Corridor v. U.S. Army Corps of Engineers). If the discharge originates in two states (shared water body), then both states must certify the permit or license. Indian tribes are treated in the same manner as states (Section 131.4(c)) if they are qualified to set water quality standards (Section 131.7). Otherwise, EPA conducts the certification. A notice is provided to all “affected” states. The affected state(s) may object to granting of the certification; in this case, EPA can determine whether to hold a hearing on what conditions may be necessary to protect the downstream water quality standards. In the situation where a state lacks authority to provide a certification, the certification will be from EPA.

2.3 Certification Options and Implications

States may grant, grant with conditions, deny, or waive 401 water quality certification for a *federally* permitted or licensed activity that may result in a discharge to the waters of the United States, if it is the State where the discharge will originate. The decision to grant or deny certification is based on a State’s determination from data submitted by an applicant (and any other information available to the State) where the proposed activity will comply with the requirements of certain sections of the CWA enumerated in Section 401(a)(1) (Attachment 1).

The 401 water quality certification is essentially a verification by the state that a given project will not degrade Waters of the State or otherwise violate water quality standards. Specifically, in order to obtain certification of any proposed activity that may result in a discharge to waters of the United States, an applicant must demonstrate that the *entire activity over its lifetime* will not violate or interfere with the attainment of any limitations or standards contained in effluent limitations for conventional (**Section 301**) and nonconventional (**Section 302**) pollutants, water quality standards (**Section 303**), new source performance standards (**Section 306**), and toxic pollutants (**Section 307**), the federal regulations promulgated pursuant thereto, and any provisions of state law or regulation adopted pursuant to, or which are more stringent than, provisions of the Clean Water Act.

As stated in the EPA 1989 document entitled “*Wetlands and 401 Certification: Opportunities And Guidelines For States and Eligible Indian Tribes*”: “*The agency may condition certification on any requirements consistent with ensuring the applicant’s compliance with the provisions [listed above], or with any other requirements of state law [emphasis added] related to the maintenance, preservation, or enhancement of water quality*”. Therefore, certification shall set forth any effluent limits, or other limitations necessary to assure that the permit will comply with the Clean Water Act and state law.

Generally, 401 water quality certifications are conditional. This means that the state certification agency will attach stipulations which must be implemented for the certification to be valid. These stipulations can require that certain design criteria are met, restrict timing of operations, require water quality monitoring, require that certain management practices are followed and whatever conditions are necessary to protect the resource. Also, any of the best management practices (BMPs) developed in a State's Coastal Nonpoint Source Management Plan can be attached when appropriate to 401 certifications. All 401 certification conditions are attached by the federal agencies (e.g., Corps) as conditions of the permit and are mandatory and enforceable. Nothing in a 401 certification can ever be interpreted as authorizing violations of the state water quality standards, or relieving liability for damage to another person's property or rights.

2.4 Reviewability of 401 Certification

Reviews and appeals of limitations and conditions attributable to Section 401 certifications are to be reviewed in *state*, not federal, court. (Section 124.55(3); *Roosevelt Campobello International Park Comm'n v. EPA*). In addition, EPA or other federal agencies are not to review (or alter) 401 certifications. (*Lake Erie; American Rivers, Inc. v. FERC*).

2.5 CWA Section 401(a)(1) Procedures

Section 401(a)(1) requires that *any applicant* for a *Federal* license or permit to conduct *any activity*, including, but not limited to, the construction and subsequent operation of facilities, which may result in any *discharge* into navigable waters, *shall obtain a certification* from the state where the discharge originates that the discharge will comply with the applicable CWA and state provisions. Federal regulations regarding 401 certification are found in 40 CFR Part 121 (401 Certification regulations), 40 CFR Parts 122, 44, 124.53 and 124.55 (NPDES) and 33 CFR 320, 320.4(d) (Section 404).

If the certifying state agency fails or refuses to act within a reasonable period, which shall not exceed one year after receipt of such request, the certification requirement is considered waived. However, a Federal agency may accept late certification (i.e., right to certify is waived, but certification is still valid if submitted late) (*Puerto Rico Sun Oil Company v. EPA*).

The certification shall set forth any effluent limits, or other limitations necessary to assure that the permit will comply with the CWA and state law. Provisions of Sections 301, 302, 303, 307 are requirements which address effluent limits, water quality standards, NSPS, and toxic pollutants.

No federal license or permit shall be granted until the certification has been obtained or has been waived. No federal license or permit shall be granted if certification has been denied (Section 401(a)(1). No license or permit may be issued unless certification is granted or waived by the certifying agency(Section 124.53(a)).

The states shall establish procedures for public notice and, as appropriate, public hearings. If EPA is the issuing agency and certification is not provided by the applicant, then EPA will notify the state and seek certification.

2.6 Certification – CWA Section 401(a)(2)

EPA is to be notified by the licensing or permitting agency of an application and certification. If EPA determines the activity may affect water quality in another state, EPA will, within 30 days, notify the other state, the licensing agency, and the applicant (40 CFR Section 121.13). If, within 60 days of notice, an affected state determines the discharge will violate its water quality standards, it may request a public hearing. The hearing must be granted and EPA notified. At the public hearing, EPA submits an evaluation with respect to the objection and provides recommendations as to whether the permit/license should be issued. The licensing or permitting agency should condition the permit or license, based on the information provided by the other state, EPA, and the public, to ensure compliance with water quality requirements. *If the conditions cannot insure compliance with water quality requirements, the project shall be denied.*

2.7 Certification – CWA Section 401(a)(3)

The certification for construction of a project is valid for operation, *unless there are changes after issuance* in:

- construction or intended operation of the facility;
- characteristics of the receiving water;
- water quality criteria; or
- effluent limitations.

The certifying agency has 60 days after being notified of the project change, to notify the permitting or licensing agency and the applicant that the changes may result in a violation of the Clean Water Act.

2.8 Certification – CWA Section 401(a)(4)

Prior to the initial operation of a 401 certified activity or facility, before the activity or facility receives its operating license or permit, the applicant must provide the state *an opportunity to inspect the project* to ensure compliance with water quality standards. If the certifying agency notifies the permitting agency that the activity will violate water quality requirements, the permitting agency may, after public hearing, suspend the license or permit. The license or permit remains suspended until the certifying agency confirms that the activity will not violate the Clean Water Act.

2.9 Certification – CWA 401(a)(5) and (6)

Under Section 401(a)(5) and (6) of the Clean Water Act, *any license or permit certified under 401 may be suspended or revoked by the federal permitting agency upon entering a judgment that the activity has violated provisions of the Act. Except for NPDES permits commenced prior to April 3, 1970, all federal facilities require certification.*

2.10 Certification – CWA 401(b)

Nothing in Section 401 shall limit federal agencies authority from requiring compliance with the CWA. On request by any federal, state, or interstate agency, or the applicant, EPA shall provide comments on any method or requirements to comply with the CWA.

2.11 Certification – CWA 401(c) and (d)

The U.S. Army Corps of Engineers (ACOE) can permit the use of its spoil disposal sites and charge for this use. The certification shall have conditions to assure the applicant's compliance with the CWA, including effluent limitations and monitoring, *or any other requirement* under state law, and these shall become a condition of the federal permit (PUD). The purpose of the 401 certification is to assure that federal licensing and permitting agencies can not override State water quality standards (PUD; legislative history).

2.12 40 C.F.R. Part 121

These federal regulations cover state certification of activities requiring a federal license or permit. The regulations include the following:

- Subpart A. General. Includes the definitions, content of certification and content of application.
- Subpart B. Determination of Effects on Other States. Addressed review by EPA, notification of affected states, hearings on objections of affected states, and waiver.
- Subpart C. Certification by EPA. Process and procedures when EPA is certifying authority, including, application requirements, notice and hearing procedures, certification, the affects of new water quality standards, inspections, and termination of suspension.
- Subpart D. Consultation. On request, EPA may review and provide advice to the permitting agency on approved water quality standards and compliance by the discharger.

2.13 State Certification Options

State certification processes are provided under 40 C.F.R. Section 121.1(3), and state that the “certifying agency” means the agency or person designated by the Governor or by

statute, or by other governmental act, to certify compliance with applicable state water quality standards.

There are basically two processes states use to issue water quality certifications and include the following:

- Use an existing permit structure to provide certification;
- Issue an independent certification.

Although there are advantages and disadvantages to each, each state has the opportunity to protect state waters regardless of the state's process used to certify. For states that issue independent certification, a clear advantage is that the state is not confined to the permit scope and provisions as the basis for certification. For example, certification for a 404 permit was based on an aquatic plant management permit. This process clearly limited the scope of the certification and also affected the timing of certification. If permit review requires more information, the certification may be held up, and in many cases the COE will issue the permit contingent on later certification.

For states that use a permit as certification, the process is effective when the permit scheme is similar to the permit activity being certified. For example, if the proposed permit is a 404 dredge and fill project, a state permit for dredge and fill activity can be an effective certification tool. In other cases, however, it may not be an effective tool if the scope of the state permit does not match the federal activity. In this case, some activities may not be certified.

Attachment 1

Section 401 of the Clean Water Act (33 U.S.C. 1341)

(a) Compliance with applicable requirements; application; procedures; license suspension

- (1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 301(b) and 302 of this title, and there is not an applicable standard under sections 306 and 07 of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy section 511(c) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.
- (2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines

- (3) that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.
- (4) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 301, 302, 303, 306, or 307 of this title.
- (5) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is

not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 301, 302, 303, 306, or 307 of this title.

- (6) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this chapter that such facility or activity has been operated in violation of the applicable provisions of section 301, 302, 303, 306, or 307 of this title.
- (7) Except with respect to a permit issued under section 402 of this title, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

(b) Compliance with other provisions of law setting applicable water quality requirements

Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State

or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

(c) Authority of Secretary of the Army to permit use of spoil disposal areas by Federal licensees or permittees

In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

(d) Limitations and monitoring requirements of certification

Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this title, standard of performance under section 306 of this title, or prohibition, effluent standard, or pretreatment standard under section 307 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

Chapter 3. Scope of the Water Quality Certification Process

3.1 Basis for Certification Decisions and the Role of Waters of the State

Section 401 is written broadly with respect to a State's ability to regulate activities and protect water quality. As stated in 401(d), the Congress gave the States the authority to place any conditions on a water quality certification that are necessary to assure that the applicant will comply with effluent limitations, water quality standards, standards of performance or pretreatment standards; with any State law provisions or regulations more stringent than those sections; and with any other appropriate requirement of State law.

This important point regarding the scope of WQC was reiterated in the *1989 EPA Handbook* stating the following:

“The legislative history of the subsection indicates that the Congress meant for the States to impose whatever conditions on the certification are necessary to ensure that an applicant complies with all State requirements that are related to water quality concerns.”

“While few of these conditions are based directly on traditional water quality standards, all are valid and relate to the maintenance of water quality or the designated use of the waters in some way. Some of the conditions are clearly requirements of State or local law related to water quality other than those promulgated pursuant to the CWA sections enumerated in Section 401(a)(1). Other conditions were designed to minimize the project's adverse effects on water quality over the life of the project.”

Therefore, certifying state agencies can look at:

- Long-term and indirect impacts;
- Impacts above and below the project; and
- 401(d) requires the state to assure compliance with state water quality standards in light of permitted “activity”, not just the discharge; thus a state's minimum stream flow requirement is a permissible condition of a 401 certification (PUD No. 1 of Jefferson County).

The certification protects not only the attainment of criteria, but also includes **preservation** of designated uses, reservoir habitat, etc. *Therefore, the 401 water quality certification can be an important tool to address 303(d) listed streams and implementation of TMDLs.*

For example, in the context of a section 404 permit:

- (a) 33 CFR Section 320.3(a) – specifies that a 401 certification is required. “A certification that is obtained for the construction of any facility *must also pertain to the subsequent operation of the facility*”.
- (b) 33 CFR Section 320.4 – “Applications for permits for activities which may adversely affect the quality of waters...will be evaluated for compliance with applicable effluent limitations and water quality standards, *during the construction and subsequent operation of the proposed activity*. The evaluation should include *both point and nonpoint sources of pollution*.”

Examples include the following:

- The certification for a housing development could include water quality requirements related to storm water runoff after construction.
- Certification would be required for a FERC license to replace turbine generators which would significantly alter the volume, timing, and intensity of water flowing into a river below the dam (Alabama Rivers vs. FERC).

3.2 Section 401 Certification and Wetlands

In 1988, the National Wetlands Policy Forum recommended that States “make more aggressive use of their certification authorities under Section 401 of the CWA to protect their wetlands from chemical and other types of alterations.” In response, in 1989, EPA issued guidance to States on applying Section 401 certification to protect wetlands. A year later, EPA issued guidance on developing water quality standards specifically for wetlands. Wetland water quality standards are important because they are the primary tool used in water quality certification decisions. At least twenty States and Tribes have been awarded State Wetlands Protection Grants to support use of Section 401 Certification to protect wetlands.

Over the past several years, States have made progress in applying Section 401 certification to wetlands. Some States rely on Section 401 certification as their primary mechanism to protect wetlands in the State. In addition, most States denied certification of nationwide permit 26 (now inactive as “reserved”) because they believed that individual review of projects in isolated and headwater wetlands is critical to achieving CWA goals in their States.

EPA asked States to develop and improve their wetland water quality standards by the end of September 1993. Wisconsin as well as a few other states is now using its wetland standards in Section 401 certification decisions on wetlands. Other States are using their Section 401 authority to condition some of the dams that are coming up for relicensing by FERC. Section 401 certification allows States to address associated chemical, physical, and biological impacts such as low dissolved oxygen levels, turbidity, inundation of habitat, stream volumes and fluctuations, filling of habitat, impacts on fish migration, and loss of aquatic species as a result of habitat alterations.

Narrative criteria in conjunction with antidegradation policies (both addressed in Chapter 4) can provide the basis for addressing hydrologic and physical impacts to wetlands (not discerned through numeric criteria) caused by nonpoint source pollution, stormwater discharges, groundwater pumping, filling, and other sources of wetland degradation. When combined with a strong implementation policy, wetland water quality standards can provide the basis for such tools as best management practices (BMPs), monitoring programs, and mitigation plans, as well as serve as the primary basis for Section 401 certification decisions.

3.3 2006 U.S. Supreme Court Ruling on *S.D. Warren Co. V. Maine Board of Environmental Protection et al.*

Perhaps, however, the clearest statement to date regarding the scope of 401 certification was provided recently and therefore, is discussed in more detail below. In general, the finding stated that 401 certification is required for operation of dams based on the broad reading of “discharge”, and was not limited to discharge of pollutants as used for 402 purposes.

As stated in the *1989 EPA Handbook*, “The legislative history of Section 401(d) indicates that Congress meant for the States to condition certifications on compliance with any State and local law requirements related to water quality preservation. **The courts that have touched on the issue have also indicated that conditions that relate in any way to water quality maintenance are appropriate.**” [emphasis added]

Recently, on May 15, 2006, the Supreme Court of the United States in *S.D. Warren Co. v. Maine Board of Environmental Protection et al.* unanimously upheld the requirement and breadth of the CWA Section 401 water quality certification (based on a FERC hydroelectric dam project). As stated in the Opinion of the Court (Justice Souter) for the case:

“State certification under 401 are essential in the scheme to preserve state authority to address the broad range of pollution, as Senator Muskie explained on the floor when what is now 401 was first proposed:

“No polluter will be able to hide behind a Federal license or permit as an excuse for a violation of water quality standards[s]. No polluter will be able to make major investments in facilities under a Federal license or permit without providing assurance that the facility will comply with water quality standards. No State water pollution control agency will be confronted with a fait accompli by an industry that has built a plant without consideration of water quality requirements.” 116Cong. Rec. 8984 (1970).”

“These are the very reasons that Congress provided the States with power to enforce “any other appropriate requirement of State law,” 33 U.S.C. 1341(d), by imposing conditions on federal licenses for activities that may result in a

discharge, ibid. Reading 401 to give “discharge” its common and ordinary meaning preserves the state authority apparently intended.”

Historically, Georgia’s GADNR/EPD held that 401 certification must have a nexus to the State’s water quality rules. In 1989, EPD limited review to strictly numeric water quality standards. However, over the years, EPD has broadened the scope to include narrative standards including antidegradation, designated uses, existing uses, and others. EPD has been able to accommodate Wildlife Resources Division (WRD) concerns on FERC 401 certifications by arguing a demonstrable nexus between WRD fishery issues and designated or existing use language in the EPD rules (e-mail, pers. comm., Keith Parson, State 401 Certification Coordinator, GADNR/EPD).

After the Warren Supreme Court finding, Keith Parsons (GADNR/EPD State Water Quality Coordinator, e-mail, pers. comm.) further stated that:

“Extant hydropower structures are undeniably existing uses and must be considered as such in 401 certification review. But with that said, the Court invoked the language of the CWA preamble “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” to reach its opinion. The preamble language is reflected in the EPD water quality narrative criteria and establishes the nexus to the goals of WRD fisheries allowing EPD to require fish passage as a condition of FERC relicensing.”

“Most telling and most importantly, the opinion in the second to last paragraph [of Judge Souter’s opinion] makes it very transparent that the States do not actually need a nexus to their water quality rules, but in fact have the “power to enforce” any other appropriate requirements of state law’ by imposing conditions on federal licenses for activities that may result in a discharge.” It is this final reading by the Court that gives EPD the opportunity to widen our scope when considering possible conditions on a Section 401 water quality certification for any particular federal license. EPD is clearly no longer necessarily constrained to having to demonstrate a nexus to WQ rules, but may, in fact, cast broadly over all State water law to establish 401 conditions.”

Other provisions of Georgia state law that can be included in the scope of review for Section 401 certification decisions will be discussed further in Chapter 6 entitled “Provisions of Georgia State Laws in the 401 Water Quality Certification Process”.

Chapter 4. The Role of Georgia's State Water Quality Standards in the State 401 Certification Process

As stated in the *1989 EPA 401 Handbook*, "The most important regulatory tools for the implementation of 401 certification are the States' water quality standards regulations and their 401 certification implementing regulations and guidelines." The 401 certification implementing regulations and guidelines will be discussed further in Chapters 8 and 9.

EPA's water quality standards regulations (303) require States to adopt water quality standards which have three basic components: designated uses, water quality criteria, and anti-degradation. The 401 certification is based upon the state water quality standards and policies. A determination is made as to whether the applied for activity is likely to result in a violation of the numerical or narrative standards, or an impairment of the designated beneficial uses of the affected waterbody which includes protecting designated uses, meeting criteria, and complying with the antidegradation policy.

4.1 Water Quality Standards

4.1.1 Definitions

The State of Georgia's GADNR/EPD is responsible for setting and enforcing water quality standards. The goals of establishing these State standards are to "provide enhancement of water quality and prevention of pollution; to protect the public health or welfare in accordance with the public interest for drinking water supplies, conservation of fish, wildlife, and other beneficial aquatic life, and agricultural, industrial, recreational, and other reasonable and necessary uses and to maintain and improve the biological integrity of the waters of the State"(Rules & Regulations for Water Quality Control Chapter 391-3-6-.03(2)(a).

Georgia's water quality standards define "**water**" or "**waters of the State**" to mean

*"any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, **wetlands**, and all bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation."*

A definition for "**wetlands**" can be found on page 94 of the current standards (Revised – November 2005) under Section 391-3-6.17 entitled "Sewer Sludge (Biosolids) Requirements." The definition for wetlands is as follows:

“Wetlands” means those areas that are inundated or saturated by surface Water or ground Water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

When States include “wetlands” in the definition of surface waters covered by their water quality standards, they clarify that activities in or affecting wetlands are subject to the same analysis in the 401 certification process as are projects affecting lakes, rivers, or streams. Wetlands, whether adjacent to or isolated from other waters, are waterbodies in and of themselves and an applicant for water quality certification must show that a proposed project will not violate water quality standards in those wetlands, as well as in other waters.

The 1989 EPA 401 Handbook states:

“Water quality standards specifically tailored to wetlands provide a consistent basis for the development of policies and technical procedures for managing activities that impact wetlands. Such water quality standards provide the goals for Federal and State programs that regulate discharges to wetlands, particularly those under CWA Sections 402 and 404 as well as other regulatory programs (e.g., Sections 307, 318, and 405) and nonregulatory programs (e.g., Sections 314, 319, and 320). In addition, standards play a critical role in the State 401 certification process by providing the basis for approving, conditioning, or denying Federal permits and licenses, as appropriate. Finally, standards provide a benchmark against which to assess the many activities that impact wetlands.”

In general, water quality standards include:

- Designated uses – generally defined as the uses of water necessary for the survival or well being of man, plants, and wildlife;
- Criteria to protect uses – numeric and/or narrative limits or bans on substances, water characteristics, and activities; and
- Antidegradation policy – requires that existing high-quality waters be protected and maintained.

A more extensive description of each of the components is provided below.

4.1.2 Designated Uses

The State’s Board of Natural Resources is authorized through the Rules and Regulations for Water Quality Control to establish water use classifications and water quality standards for the waters of the State. For each water use classification, water quality standards or criteria have been developed, which establish the framework used by the EPD to make water use regulatory decisions. EPA directs, that, where attainable, designated uses must include, at a minimum, uses necessary to protect the goals of the

CWA for the protection and propagation of fish, shellfish, and wildlife and provide for recreation in and on the waters (e.g., “fishable/swimmable”). In no event, however, may a beneficial **existing use** (or use which is actually attained in the water body on or after November 28, 1975) be removed from a water body or segment.

Currently, the State of Georgia classifies all waters into categories, which have different standards depending on the designated use of the water body. The State’s waters are currently classified as fishing, recreation, drinking water, wild river, scenic river, or coastal fishing. These uses are provided in the text box below.

State of Georgia Designated Uses

1. **Drinking water supplies** – waters approved as a source for public drinking water systems permitted by the GADNR/EPD. Waters classified for drinking water supplies will also support fishing use and any other use requiring water of a lower quality
2. **Recreation** – the water supports general recreational activities such as boating, swimming, and water skiing
3. **Fishing** – the water supports the propagation of fish, shellfish, game and other aquatic life
4. **Wild river** – often grouped together with “scenic river” and is the highest water quality standard
5. **Scenic river** – often grouped together with “wild river” and is the highest water quality standard
6. **Coastal fishing** – refers to those waters along the ocean side of Georgia’s coast that support recreational and commercial fishing. *Note: This designation is site specific and pertains to a heavily polluted port site on the Savannah River.*

4.1.3 Water Quality Criteria to Protect Designated Uses

Water quality criteria, either pollutant-specific numerical criteria or narrative criteria (“free froms”), must protect the designated and existing uses.

The following **narrative general criteria** are deemed to be necessary and applicable to all waters of the State of Georgia (391-3-6.03(5)(a)-(e):

All waters shall be free from materials associated with municipal or domestic sludge, industrial waste, or any other waste which will settle to form sludge deposits that become putrescent, unsightly or otherwise objectionable.

All waters shall be free from oil, scum and floating debris associated with municipal or domestic sewage, industrial waste or other discharges in amounts sufficient to be unsightly or to interfere with legitimate water uses.

All waters shall be free from material related to municipal, industrial, or other discharges which produce turbidity, color, odor or other objectionable conditions which interfere with legitimate water uses.

Turbidity. The following standard is in addition to the narrative turbidity standard in Paragraph 391-3-6-.03(5)© above:

All waters shall be free from turbidity which results in a substantial visual contrast in a water body due to a man-made activity. The upstream appearance of a body of water shall be as observed at a point immediately upstream of a turbidity-causing man-made activity. That upstream appearance shall be compared to a point which is located sufficiently downstream from the activity so as to provide an appropriate mixing zone. For land disturbing activities, proper design, installation, and maintenance of best management practices and compliance with issued permits shall constitute compliance with Paragraph 391-3-6-.03(5)(d).

All waters shall be free from toxic, corrosive, acidic and caustic substances discharged from municipalities, industries or other sources, such as nonpoint sources, in amounts, concentrations or combinations which are harmful to humans, animals or aquatic life.

Georgia has adopted 31 **numeric standards** for protection of aquatic life and 90 numeric standards for the protection of human health (see Georgia's Rules and Regulations for Water Quality Control Chapter 391-3-6-.03- Water Use Classifications and Water Quality Standards). These general numeric-specific criteria also include acute and chronic concentrations of metals, as well as maximum allowable concentrations of pollutants such as pesticides, polycyclic aromatic hydrocarbons (PAHs) and other chemicals.

Specific water quality criteria for classified water usage includes fecal coliform bacteria, dissolved oxygen, pH, temperature, and nutrients. Currently, Georgia only has nutrient standards on a limited number of lakes (West Point, Jackson, Walter F. George, Lanier, Allatoona, And Carter's). Georgia's rules and regulations protect all waters from the use of primary contact recreation by having a fecal coliform bacteria standard of a geometric mean of 200 per 100 ml for all waters with the use designations of fishing or drinking water to apply during the months of May – October (the recreational season). Additional nutrient standards for all waters will be established in the near future.

Specific water quality criteria are changed based on use. These **specific criteria** are listed below:

Fecal Coliform Bacteria - presence in water bodies indicates that the water has been contaminated with fecal material of man or animals. The presences of bacteria not only decreases the quality of the environment for aquatic life, but also indicates a potential health risk to humans and animals exposed to the water.

Dissolved Oxygen (DO) – is the amount of oxygen dissolved in water. Aquatic life, including fish and plants, depend on DO for survival. Concentration of DO in water is highly dependent on temperature (higher temperature, lower DO) but pollution also tends to lower the DO.

pH – indicates the acidity or basic nature of a solution. pH should be relatively neutral (around 7.0) to support aquatic life.

Temperature – affects the capability of chemicals and other pollutants to dissolve in water. Therefore, increased temperature makes it easier for pollutants to dissolve. Temperature also affects DO content; DO decreases as temperature increases. Consequently, high temperatures are detrimental to aquatic life.

Nutrients – most aquatic plants and fish depend on nutrients such as nitrogen and phosphorus, however, excessive levels of these nutrients can cause too much plant and algal growth. This will lower the DO, increase turbidity, and may decrease recreational opportunities. Currently, Georgia only has nutrient standards on a limited number of lakes, however nutrient standards for all water will be established in the near future. The most current State of Georgia specific water quality criteria for the six designated uses are provided below in Table 1.

Table 1. Georgia's Specific Water Quality Criteria

	Fecal Coliform Bacteria	Dissolved Oxygen	pH	Temperature
Drinking Water Supply (not treated drinking water)	May-Oct <200 colonies/100 mL as geometric mean Nov-Apr <400 colonies/100 mL (instantaneous max)	>5 mg/L daily average Not <4 mg/L at all times	Between 6.0 and 8.5	< 90 degrees F
Recreation	Coastal Waters: 100 colonies/100 mL Other: 200 colonies/100 mL	>5 mg/L daily average Not <4 mg/L at all times	Between 6.0 and 8.5	< 90 degrees F
Fishing	May-Oct <500 colonies/100 mL as geometric mean Nov-Apr <4000 colonies/100 mL (instantaneous max)	>5 mg/L daily average Not <4 mg/L at all times	Between 6.0 and 8.5	< 90 degrees F
Coastal Fishing	May-Oct <500 colonies/100 mL as geometric mean Nov-Apr <4000 colonies/100 mL (instantaneous max)	Site specific	Between 6.0 and 8.5	<90 degrees F
Wild River	No alteration of natural water quality	No alteration of natural water quality	No alteration of natural water quality	No alteration of natural water quality
Scenic River	No alteration of natural water quality	No alteration of natural water quality	No alteration of natural water quality	No alteration of natural water quality

4.1.4 Antidegradation

At a minimum, a State's antidegradation policy must be consistent with the following provisions:

- Existing uses and the level of water quality necessary to protect existing uses in all segments of a water body must be maintained;
- If the quality of the water is higher than that necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected, unless the State finds that lowering the water quality is justified by overriding economic or social needs determined after full public involvement. In no event, however, may water quality fall below that necessary to protect the existing beneficial uses;
- If the waters have been designated as outstanding resources waters (ORWs), no degradation (except temporary) of water quality is allowed.

In addition, state antidegradation policies should provide for the protection of existing uses in wetlands and the level of water quality necessary to protect those uses in the same manner as for other surface waters (see Section 131.12(a)(1) of the water quality standard regulation). The existing use can be determined by demonstrating that the use or uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow the use to be attained. This is the basis of EPA's antidegradation policy and is important in the wetland protection effort. States, especially those that adopt less detailed use classifications for wetlands, will need to use the existing use protection in their antidegradation policies to ensure protection of wetland values and functions.

The State of Georgia's antidegradation policy is as follows (391-3-6-.03(2):

Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the division finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the division's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located in allowing such degradation or lower water quality, the division shall assure water quality adequate to protect existing uses fully. Further, the division shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

Outstanding National Resource Waters (ONRW). This designation will be considered for an outstanding national resource waters, such as waters of National or State parks and wildlife refuges and waters of exceptional recreational or ecological significance. For waters designated as ONRW, existing water quality shall be maintained and protected.

No new point source discharges or increases in the discharge of pollutants above permitted level from existing point source discharges to ONRW shall be allowed.

Existing point source discharges to ONRW shall be allowed, provided they are treated or controlled in accordance with applicable laws and regulations.

New point source discharges or expansions of existing point source discharges to waters upstream of, or tributary to, NRW shall be regulated in accordance with applicable laws and regulations, including compliance with water quality criteria for the use classification applicable to the particular water. However, no new point source discharge or expansion of an existing point source discharge to waters instream of, or tributary to, ONRW shall be allowed if such discharge would not maintain and protect water quality within the ONRW.

At this point in time, the State of Georgia has not yet designated any waters in the State as ONRWs.

In the case of **wetland fills**, however, EPA allows a slightly different interpretation of the antidegradation policy. Because on the federal level, the Congress has anticipated the issuance of at least some permits by virtue of Section 404, it is EPA's policy that, except in the case of ORWs, the "existing use" requirements of the antidegradation policy are met if the wetland fill does not cause or contribute to "significant degradation" of the aquatic environment as defined by Section 230.10(c) of the Section 404(b)(1) Guidelines. Thus, the Guidelines may be used by the States to determine "significant degradation" for wetland fills.

The Guidelines also state that the following effects contribute to significant degradation, either individually or collectively:

“...significant adverse effects on(1) human health or welfare, including effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites (e.g., wetlands); (2) on the life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration or spread of pollutants or their byproducts beyond the site through biological, physical, or chemical process; on ecosystem diversity, productivity and stability, including loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water or reduce wave energy; or (4) on recreational, aesthetic, and economic values.”

4.2 Impaired Waters

4.2.1 305(b) Report/303(d) List

The Clean Water Act calls on each state to list its polluted water bodies and to set priorities for their clean up. Water bodies qualify for these “impaired waters lists” when they are too polluted or otherwise degraded to support their designated and existing uses. Any water body that does not meet or is not expected to meet the state’s water quality standards after full implementation of existing permits should be considered impaired and listed on the 303 (d) list. The impaired waters list is also called the 303(d) list, named after the section in the act that requires it. Each state must report their lists to Congress every two years on the health of all its waters, not just those that are impaired. Information from this report, known as the 305(b) report or “biennial water quality report to Congress,” is used to develop the “impaired waters” list.

Most states start with the data and findings from the 305(b) report and add information from other sources, such as the EPA report of waters affected by nonpoint sources. Most state water quality agencies are able to sample or monitor only a small percentage of their waters consistently enough to detect many water quality problems. This includes waters that fail to meet any of their applicable criteria – whether narrative or numeric, or chemical, physical, or biological. For example, a water that appears to meet all of its numeric chemical criteria (e.g., criteria for dissolved oxygen, pH, and various common pollutants) but doesn’t meet its narrative biological criteria should be listed as impaired. Neither the cause of a water quality problem nor its solutions need to be clear for a water to be listed. For example, waters in which one or more species are in rapid decline may not have been determined yet. In fact, one of the greatest values of 303(d) listings is to trigger analysis to pinpoint sources of problems.

Once identified, problems can be addressed through the development of comprehensive watershed restoration plans. States must develop a watershed restoration action plan called a “Total Maximum Daily Load” (TMDL) for each impaired water body. Since a listing can lead to restrictions on new discharges, changes to existing permits, and improved management practices to reduce nonpoint source pollution, the effort to make sure that impaired waters lists are complete is worthwhile.

Once a water body is placed on the “impaired waters” list, it becomes one of many in line for the TMDL process, as required by the Clean Water Act. This process specifies problems, identified pollution sources, determines pollution reductions needed to solve the problems and assigns responsibilities for needed actions. Once impaired waters are placed on the list, proposals for new and increased discharges should receive greater scrutiny. Clean Water Act regulations prohibit new discharges that “will cause or contribute to the violation of water quality standards.”

A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. The calculation includes an allocation of that amount to the sources of pollution. A TMDL adds up all of the allowable loads of a

single pollutant from all point and nonpoint sources within a watershed that contribute pollution. The calculation includes a margin of safety to ensure that water will meet its uses, and must account for seasonal variation in water quality. A TMDL is also a process that can be used to help clean waters and provide a means to study the state's streams.

4.2 2 303(d) List and TMDL Application in Georgia

Every two years, Georgia prepares a 305(b)/303(d) list of waters as a part of the Georgia assessment of water quality prepared in accordance with Sections 305(b) and 303(d) of the Federal CWA and guidance from the EPA. Georgia's EPD sets water quality standards and is responsible for listing waters that do not meet these standards in the State of Georgia. If a water body does *not support* or *partially support* its designated use (drinking water; recreation; fishing, propagation of fish, shellfish, game and other aquatic life; wild river; scenic river; or coastal fishing) by violating water quality standards, it is considered "impaired" and is a candidate for a TMDL study. A water body in Georgia is placed on the *partially supporting* list if:

- The chemical data (dissolved oxygen, pH, temperature) indicated a water quality standard was exceeded in more than 10% of the samples collected for a given location; or
- If a fish consumption guideline was in place for the water body.

A water body is placed on the *not supporting* list if :

- chemical data indicated a water quality standard was not met in greater than 25% of the samples collected for a given location;
- if a fish consumption ban was in place; or
- if tests indicated toxicity at low flow in a municipal or industrial discharge.

In 2004, Georgia had over 800 streams and rivers throughout the state that were not fully supporting their designated uses. Georgia's top probable sources of impairments for rivers and streams included nonpoint source, unspecified urban stormwater, industrial/commercial permitted site stormwater discharge, combined sewer overflows, industrial point source discharge, and dam or impoundments (EPA 2004 Section 303(d) List Fact Sheet). Some of the top probable sources of water quality impairment to Georgia's rivers and streams included, but were not limited to, fecal coliform, dissolved oxygen, impacted biological communities, trophic weighted residue, fish consumption guidelines, commercial fishing bans, pH, and toxicity (EPA 2004 Section 303(d) List Fact Sheet).

In addition, Georgia's 2004 assessed 93 square miles of bays and estuaries indicated that 100% of the sampled waters were impaired. The top probable sources of impairment for Georgia's bays and estuaries included industrial point source discharge, municipal point source discharge, unspecified urban stormwater, and nonpoint source pollution (EPA 2004 Section 303(d) List Fact Sheet). The State's 2004 top causes of impairment for bays and estuaries included dissolved oxygen, fish consumption guidance, shellfishing

ban, PCB in fish tissue, and mercury in fish tissue (EPA 2004 Section 303(d) List Fact Sheet). More specific information regarding this data can be found at EPA's website: http://oaspub.epa.gov/waters/state_rept.control?p_state=GA. Each impaired water body has the potential to have several TMDLs conducted, depending on the number of water quality standards violated.

The Georgia 2006 305(b)/303(d) list of waters was prepared as a part of the Georgia 20004-2005 assessment of water quality prepared in accordance with Sections 305(b) and 303(d) of the CWA and guidance from the USEPA. Assessed waterbodies are classified according to a comparison of water quality monitoring results to water quality standards and other pertinent information. Utilizing this information, assessed waterbodies are classified as supporting, partially supporting, or not supporting designated water uses. The Georgia 2006 305(b)/303(d) list documents for rivers and streams and estuarine waters not fully supporting designated uses as well as the 2006 USEPA added waters to the Georgia EPD's 305(b)/303(d) list can be found on the GA EPD website: www.gaepd.org/Documents/305b.html. In addition, the State's 2008 Final Integrated 305(b)/303(d) Report (also referred to as "Water Quality in Georgia 2006-2007") is also found on the same website. This particular document provides information regarding surface water quality monitoring and assessment, wetland programs, estuary and coastal programs, water protection programs, the State's Comprehensive Statewide Water Management Plan, and others. The EPA's Georgia factsheet for 303(d) and TMDL can be found at <http://oaspub.epa.gov/waters/state-rept.control>. Also, a 2006 EPA Office of Water memorandum regarding the establishment of TMDL "Daily" loads in light of a court decision can be found in Appendix 1. These resources will be invaluable to the new coastal 401 staff regarding the coastal waters (rivers, streams, estuaries, etc.) that do not fully support the water's designated uses.

During the 401 certification process, EPD may require project modification or increased mitigation if a proposed project may impact 303(d) listed waters. Thus, a 401 certification will ensure that the project will comply with water quality improvement plans (TMDLs) developed for affected water bodies and that the project will not adversely impact 303(d) listed streams (streams that already do not meet water quality standards).

Chapter 5. Georgia's 401 Water Quality Certification Process

5.1 Georgia's Section 401 Certification Process

The following federal permits/licenses are subject to Section 401 water quality certification in coastal Georgia:

- ACOE permits for discharges of dredged and fill material under Section 404 of the CWA;
- EPA's NPDES Permits for point source discharges under Section 402 of the CWA;
- Some ACOE Permits for activities in navigable waters which may affect navigation under Sections 9 and 10 of the Rivers and Harbors Act (RHA);
- Federal Energy Regulatory Commission (FERC) licenses required for hydroelectric projects/facilities issued under the Federal Power Act; and
- Nuclear Regulatory Commission licenses (only if FERC license is involved that requires 401 review).

The Director of the GADNR EPD shall not issue a section 401 water quality certification unless he/she determines that the applicant has demonstrated that the discharge of dredged or fill material to waters of the state or the creation of any obstruction or alteration in waters of the state will:

- (1) Not prevent or interfere with the attainment and maintenance of applicable water quality standards;**
- (2) Not result in a violation of any applicable provision of the following sections of the Federal Water Pollution Control Act ("Clean Water Act") including:**
 - (a) Effluent limitations as described in section 301;**
 - (b) Water quality related effluent limitations as described in section 302;**
 - (c) Water quality standards and implementation plans as described in section 303;**
 - (d) National standards of performance as described in section 306; or**
 - (e) Toxic and pretreatment effluent standards as described in section 307.**

EPD may impose terms and conditions as part of a section 401 water quality certification as are appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of water quality. In addition, the director of EPD may deny an application for a section 401 water quality certification if the director concludes that the discharge of dredged or fill material or obstructions or alterations in the waters of the state will result in adverse long or short term impact on water quality.

EPD normally issues 401 certification within 120 days of receipt of a complete application (based on ACOE 404 permit specifically). This is an action of the Director and is subject to appeal. Subsequently, EPD strives to assure that all 401 certifications are defensible. However, federal agencies have further defined the “reasonable period of time” within which a state must make its 401 certification decision. For both NPDES permits and permits issued pursuant to section 404 of the CWA, states generally have thirty (30) to sixty (60) days to provide certification decisions, unless the federal agency agrees to a longer period of time for certification is warranted. For licenses issued by FERC, states have one year from the date of request for certification is received to provide certification. Regarding 404 permits, once the EPD determines that an application for a permit is complete, it shall have 180 days to act on the certification, or the certification shall be considered waived.

With respect to NPDES and section 404 permits, notice that the state of Georgia will consider 401 certification is included within the federal notice regarding the permit. No such notice is provided with respect to the other federal licenses or federal permits.

Currently, the duties of the State’s 401 water quality certification program, including the sole 401 staff person, are coordinated from the EPD headquarters office (Atlanta) and administered at that office as well. However, the 401 certification program is administered in cooperation and coordination with the CRD in the coastal area to ensure consistency with the policies of the Georgia Coastal Management Program.

Currently, Georgia EPD’s 401 water quality certification coordinator reviews coastal federal permit applications to insure compliance with various state laws, rules, and regulations including, but not limited to, the following:

- numeric water quality standards
- various narrative criteria (antidegradation, existing use, designated use, others)
- State Erosion and Sedimentation Act - if a stream buffer variance for a project is required, EPD must have received a complete buffer application prior to 401 issuance;
- EPD may coordinate with CRD to ensure compliance with coastal marshland rules and regulations;
- EPD may coordinate with WRD to ensure fisheries resources and natural heritage resources are protected or avoided to the maximum extent practicable;
- EPD may require project modification or increased mitigation if the project may impact coastal 303(d) listed waters;
- EPD has the authority to look broadly at any state law regulating water resources in respect to any particular application request (Warren vs. State of Maine);
- EPD has the authority to conduct a site visit. In the case of large projects, an interagency site visit is scheduled. Small projects with straightforward parameters may not require a site visit. After a project review, EPD may invoke specific conditions in the 401 certification to ensure protection of water resources. In the vast majority of instances, EPD’s questions and conditions are addressed and the project moves forward.

- After project review, EPD may invoke specific conditions in the 401 certification to ensure protection of coastal water resources.

Because the majority of coastal Georgia 401 certifications to this date have been provided for ACOE Section 404 permitted projects (Keith Parsons, pers. comm.), the next section provides a more detailed synopsis of the CWA Section 404 regulatory program in relation to 401 water quality certification.

5.2 Section 404 Regulatory Program

The regulatory authorities and responsibilities of the ACOE are based on the following laws:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the ACOE
- Section 404 of the CWA (33 U.S.C. 1344). Section 301 of this Act prohibits the discharge of dredged or fill material into waters of the U.S. without a permit from the ACOE
- Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1413) authorizes the ACOE to issue permits for the transportation of dredged material for the purpose of dumping it into ocean waters.

5.2.1 ACOE and Section 404 Program

Section 404 of the CWA (33 U.S.C. 1344) regulatory program is administered by the ACOE and provides for the regulation of discharges of dredged or fill material into all waters of the United States including wetlands. It is the primary regulatory tool in Georgia to ensure environmental consideration is given to all projects requiring construction in surface water bodies. More specifically, Section 301 of the Act prohibits the discharge of dredged or fill material into waters of the United States without a permit from the ACOE. Typical activities requiring Section 404 permits are:

- Depositing of fill or dredged material in waters of the U.S. or adjacent wetlands;
- Site development fill for residential, commercial, or recreational developments;
- Construction of revetments, groins, breakwaters, levees, dams, dikes, and weirs;
- Placement of riprap and road fills.

Any person, firm, or agency (including Federal, state, and local government agencies) planning to work in navigable waters of the United States, or dump or place dredged or fill materials in waters of the United States, must first obtain a permit from the ACOE.

Other federal laws may affect the processing of applications for ACOE Section 404 permits. Among these laws are the National Environmental Policy Act, the Coastal Zone Management Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, the Deepwater Port Act, the Federal Power Act,

the Marine Mammal Protection Act, the Wild and Scenic Rivers Act, and the National Fishing Enhancement Act of 1984. In addition, numerous state laws are commonly utilized by the State's 401 certification review process and are discussed in detail in Chapter 6. In addition, permits, licenses, variances, or similar authorization may also be required by other Federal, state and local statutes.

Thus, several other federal and state agencies play important roles in the 404 permitting process. The federal and state natural resources agencies, including USFWS, NOAA National Marine Fisheries Service (NMFS) and the GADNR, review and comment on permit applications as related to federal and state resource concerns. Based on comments provided by the USFWS and/or NMFS, permits are modified (but can be denied) if a proposed federal action may impact federally listed threatened or endangered species or designated critical habitat. Other reasons for denial include: noncompliance with public interest review, noncompliance with 404(b)(1), or noncompliance with Federal laws. In addition, NOAA reviews proposed projects and permits as they pertain to essential fish habitat and other factors.

The EPA also comments on permit applications as to their compliance with the intent of the CWA and specifically the 404(b)(1) guidelines. The section 404 environmental guidelines [404(b)(1)] are the regulations intended to be the basis for all federal decision making on all permit applications and are contained in 40 CFR part 230. The guidelines govern the determination of the environmental effects of discharging dredged and fill material into waters of the United States for analysis of a proposed discharge, as well as alternatives to the project. Specific guidance is provided on steps to minimize adverse impacts and tests needed to make a determination of environmental effects. In cases where there is a dispute over the issuance of a permit, EPA maintains the right to prohibit discharges into areas they determine to be environmentally sensitive.

The GADNR/EPD provides a water quality certification determination on all Section 404 permit applications. This certification must be acquired before the ACOE can issue a permit.

Certain activities are exempt from regulation under Section 404. These activities include:

1. Normal farming, silviculture, and ranching practices;
2. Maintenance of existing serviceable structures such as dikes, dams, riprap, bridge abutments, and transportation structures;
3. Construction or maintenance of farm or stock ponds and irrigation ditches, and maintenance of drainage ditches;
4. Temporary sedimentation basins or construction sites, if no fill material will be placed into navigable waters;
5. Construction or maintenance of farm or forest or temporary lining roads, where best management practices are applied.

It is important to realize that a certain amount of interpretation is necessary to determine whether or not any particular project is covered by one of the above exemptions.

5.2.2 Clean Water Act Jurisdiction and Supreme Court Rulings

The Clean Water Act defines navigable waters as “waters of the United States.” More specifically, **navigable waters of the U.S.** are:

*Those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce. **These are waters that are navigable in the traditional sense where permits are required for certain activities pursuant to Section 10 of the Rivers and Harbors Act.***

This term should NOT be confused with waters of the U.S. (see below)

Waters of the United States is a broader term than navigable waters of the U.S. as defined above. Included are adjacent wetlands and tributaries to navigable waters of the U.S. and other waters where the degradation or destruction of which could affect interstate or foreign commerce. **These are the waters where permits are required for the discharge of dredged or fill material pursuant to Section 404 of the Clean Water Act.** Waters of the U.S. are defined in 33 CFR (Code of Federal Regulations) Section 328.3(a) as:

- (1) All waters which are currently used, or were use in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (2) All interstate waters including interstate wetlands;*
- (3) All other waters such as intrstate lakes, rivers, stream (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce...”*
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition [except subsection (a)(3) waters];*
- (5) Tributaries to waters identified in paragraphs (a)(1)[,(2), and] (4) of this section;*
- (6) The territorial seas; and*
- (7) Wetlands adjacent to waters (other than waters which are themselves wetlands) identified in paragraphs (a)(1)[,(2),(4),(5), and] (6) of this section.*

However, recent Supreme Court rulings have created unclear scopes of Clean Water Act geographic jurisdiction. It is necessary to provide a brief description of these rulings and the impact to jurisdictional determinations for wetlands and other waters.

The following text was excerpted directly from a draft 3/5/2007 Association of State Wetland Managers, Inc. document entitled “‘Significant Nexus’ And Clean Water Act Jurisdiction” (Kusler et al.).

In the 1972 to 2001 period, federal district and appellate courts and the U.S. Supreme Court broadly upheld Corps of Engineers and EPA Clean Water Act regulations and jurisdictional determinations for wetlands and other waters. This

included the U.S. Supreme Court in the 1985 case, *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (S. Ct. 1985). The courts held that jurisdiction extended to not only navigable coastal waters, lakes and streams and adjacent wetlands, but many nonnavigable rivers, streams, ditches, wetlands adjacent to such waters, and almost all geographically isolated wetlands and other waters subject to use by migratory birds or based on other factors affecting interstate commerce. Courts considered broad jurisdiction necessary to achieve the goals of the Clean Water Act to “restore and maintain the physical, chemical, and biological integrity” of the Nation’s waters.

In 2001, however, a narrowly divided Supreme Court (5-4) in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers* (“SWANCC”), 531 U.S. 159 (S.Ct. 2001) held that the intent of Congress, in defining “navigable waters” to include “waters of the U.S.”, was not to regulate all waters and that the Migratory Bird Rule applied by the Corps which extended Federal jurisdiction to waters based upon use by migratory birds alone went beyond the intent of Congress. The Court in SWANCC observed that it had upheld Federal jurisdiction for wetlands adjacent to navigable waters in an earlier Supreme Court case, *Riverside Bayview*, because such wetlands had a “significant nexus” to navigable waters. The SWANCC decision, however, left many unanswered questions concerning the scope of Clean Water Act jurisdiction.

From 2001 to 2006, federal district courts and appellate courts issued thirty-seven decisions dealing with the scope of Clean Water Act jurisdiction. With the exception of two decisions from the Fifth Circuit, federal district and appellate courts narrowly interpreted SWANCC. Courts repeatedly held that particular waters and wetlands were subject to Clean Water Act jurisdiction because they were adjacent to navigable waters, tributaries, or had a “significant nexus” to navigable waters based primarily upon surface hydrologic connection.

In 2006 the Supreme Court issued a consolidated decision, *Rapanos v. U.S.*, 126 S. Ct. 2208 (S.Ct. 2006) in which the Court vacated two lower appellate court decisions upholding Clean Water Act jurisdiction for wetlands which were separated by a berm from ditches or drains leading into navigable waters by a berm (Carabell) and for wetlands linked to navigable waters through a system of small natural drainageways and ditches and drains (Rapanos). In *Rapanos* the Supreme Court was more even sharply divided (4-1-4) than in SWANCC with five separate opinions as part of this larger decision. Justice Scalia and three other members of the court narrowly interpreted Clean Water Act jurisdiction in a “plurality” opinion which overturned the two lower court cases. Justice Kennedy wrote a separate opinion joining the plurality in overturning the lower court decisions but not agreeing with the plurality’s reasoning. His opinion set forth the “significant nexus” test which is currently being addressed. Justice Stevens wrote a dissent with the support of three other members of the court supporting the Federal jurisdictional determinations of the Corps and a broad interpretation of Clean Water Act jurisdiction.

Writing for four justices, Justice Stevens, who was joined by Justices Breyer, Ginsburg, and Souter, concluded that the Corps has jurisdiction of the wetlands in question and that the decisions of the Corps and lower court should be sustained. Also writing for four Justices, Justice Scalia, who was joined by Chief Justice Roberts and Justices Thomas and Alito, said that the decisions of the lower courts should be vacated and remanded. Justice Scalia thought that the Corps' assertion of federal jurisdiction was far too broad. Specifically he indicated that the phrase "the waters of the United States" includes only those relatively permanent, standing or continuously flowing bodies of water "forming geographic features" that are described in ordinary parlance as "streams," "oceans, rivers, [and] lakes." He also noted that "waters of the United States" do "not include channels through which water flows intermittently or ephemerally, or channels that periodically provide drainage for rainfall." However, in footnote 5, Justice Scalia stated that "(b)y describing 'waters' as relatively permanent," we do not necessarily exclude streams, rivers, or lakes that might dry up in extraordinary circumstances, such as drought. We also do not necessarily exclude *seasonal* rivers, which contain continuous flow during some months of the year but no flow during dry months...Common sense and common usage distinguish between a wash and a seasonal river."

Agreeing with Justice Scalia, Justice Kennedy concluded that the matter should be returned to the lower courts for re-processing in accordance with revised instructions. Unlike Scalia, however, Kennedy indicated that the lower courts may well find that the Corps appropriately had jurisdiction over the wetlands at issue in *Rapanos*.

Under the rules of the Supreme Court, when there is no majority opinion, the opinion offering the narrowest ground which would be supported by a majority of justices controls. See generally *Marks v. United States*, 430 U.S. 188 (S. Ct. 1977). Kennedy's opinion with its focus upon "significant nexus" (arguably) provides the "narrowest ground to which a majority of the Justices would have assented if forced to choose." [end of excerpt]

Thus, the Clean Water Act Section 404/401 requirements and its applications to isolated, nonnavigable waters, pursuant to SWANCC and *Rapanos* has caused tremendous changes in methods of wetlands delineation and jurisdictional determinations by the ACOE during the last year.

In addition to the ACOE's standard methods of wetlands determination and delineation described in the Corps of Engineers Wetlands Delineation Manual (1987 Manual), a DRAFT Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region (Coastal Plain Supplement) is scheduled for adoption in late 2008.

In addition, the ACOE issued a Regulatory Guidance Letter on June 26, 2008 on Clean Water Act jurisdictional determinations. This Regulatory Guidance Letter explains the

differences between these two types of Jurisdiction Determinations (JDs) and provides guidance on when an approved JD is required and when a landowner, permit applicant, or other “affected party” can decline to request and obtain an approved JD and elect to use a preliminary JD instead. For a direct link to this regulatory guidance letter, go to: <http://www.usace.army.mil/cw/cecwo/reg/rgls/rgl08-02.pdf>

5.2.3 Individual and General Section 404 Permits

There are two types of permits issued under the 404 program including “Individual” and “General”. Upon application, the ACOE will make the determination based on the environmental guidelines of which type of permit is appropriate. The Georgia 401 water quality certification coordinator averages roughly 100 individual permits and 15-20 general permit Pre-Construction Notifications (PCNs) per year throughout the State (pers. comm., Keith Parsons, GAEPD). Under no circumstance does an individual, nationwide or regional permit ever authorize a violation of or a variance to any state water quality regulation. A more detailed description on these types of permits is provided in the subsections below.

5.2.3.1 Individual Permits

An **Individual permit (IP)** is required for all regulated activities which cannot be authorized by a General permit. IPs are generally reserved for projects with potential for substantial environmental impacts and, thus, applications for individual permits undergo the greatest amount of environmental scrutiny. An IP requires a full public interest review, including public notices and coordination with involved agencies, interested parties and the general public. Large complicated projects which have the potential for significant environmental impact may require years of review before a final decision is reached.

Individual permit processing usually begins by submitting a written application to the ACOE and designated GADNR programs describing an activity which entails the discharge of dredged or fill material into waters of the United States. There are detailed instructions contained on the application form which describe all the necessary information (see Attachment 2).

When an individual permit is required, a public notice is circulated to federal agencies including the USFWS, NOAA and the EPA, state agencies including the GADNR, the state’s historical preservation organizations, local agencies, and interested individuals and organized groups. The application form requires the names and addresses of adjacent landowners who may be affected by the project. These individuals also receive the public notice and are encouraged to submit their concerns. Comments received are considered individually by GADNR in the 401 certification and by the ACOE in the permitting decisions.

Emergency authorization can be granted if a situation poses an eminent threat to life, a significant loss of property, or an immediate unforeseen and significant economic

hardship if corrective action required a permit is not undertaken. Abbreviated processing procedures are in place to ensure rapid response to requests for emergency authorization. Obvious circumstances include flood events and hazardous substance spills.

Georgia's DNR/EPD operates Section 401 water quality certification in conjunction with the ACOE via a Memorandum of Agreement (MOA) that provides for a joint application process. When an applicant applies for either a Section 404 or Section 10 Permit from the Corps, they are simultaneously applying to the Georgia DNR/EPD for a Section 401 water quality certification. However, within the ACOE permit process, certain projects/actions are pre-authorized and do not require individual 401 water quality certification. Examples include general permits (nationwide and regional) with 401 pre-approval. General permits and regional conditions to such permits are discussed in more detail later in this chapter.

For example, all activities requiring a Federal ACOE 404 permit for the discharge of dredged or fill material result in a discharge to waters or wetlands, so GADNR/EPD must take certification actions on all 404 permit applications. During review of applications for Water Quality Certification, the GADNR/EPD looks at whether or not there are feasible alternatives to the activity, if the project is water dependent, and the intended purpose of the activity. Certification is denied if the activity will adversely affect existing or designated uses. The Federal permit cannot be issued if certification is denied.

The following is an example of a typical ACOE 404 Permit processing procedure and describes the joint process used in Georgia for a Standard IP:

1. Pre-application consultation (optional).
2. Applicant obtains and completes application form.
3. Applicant submits original Joint SAS Form 19 to the following:
 - (a) For ACOE permit – Savannah District;
 - (b) For State permit – GADNR/CRD (six coastal counties only)
 - (c) For Revocable license – GADNR/CRD (11 coastal counties only)
 - (d) For 401 certification (if required) – GANDR/EPD (Atlanta)
4. Once the application is received, the ACOE assigns the application an identification number and reviews the application for completeness.
5. Public notice issued (within 15 day of receiving all information)
6. A 15-30 day comment period depending upon the nature of the proposed activity
7. The proposal is reviewed by ACOE and other appropriate individuals and agencies (including local, state and federal agencies, the public, and special interest groups).
8. GADNR/EPD evaluates the information provided and determines if additional information is needed. If so, the applicant is contacted.
9. The ACOE considers all comments provided by reviewers
10. Other Federal agencies are consulted, if appropriate

11. The District Engineer may ask the applicant to provide additional information (review period may be extended if applicant fails to submit information or due to requirements of certain laws)
12. A public hearing is held, if needed
13. GADNR/EPD mails appropriate final State Certification or permit to the applicant and COE.
14. The District Engineer makes decision
15. The permit is issued or denied and the applicant is advised of the reason.

The GADNR/EPD may waive, issue with conditions, or deny a 401 Water Quality Certification. Certification is denied if the activity will have permanent adverse effects on existing or designated uses. The federal 404 Permit from COE will not be issued without the associated state action of a Section 401 Water Quality Certification and a Coastal Zone Consistency determination.

5.2.3.2 General Permits

General permits can be established for national or regional application. An application to establish a **general permit** is evaluated and certified in the same manner as an individual permit. Once the application is certified by the state and the general permit is issued by the ACOE, however, projects which fall under the general permit's authorization do not need individual certifications. If an application is received by the ACOE, and they determine that the activity applied for is covered by the general permit, authorization to proceed is granted with no further review.

Nationwide Permits

Nationwide Permits (NWPs) are general permits issued on a nationwide basis to authorize minor activities with minimal evaluation time. NWPs are permits used throughout the United States, and were established to reduce the regulatory reporting burden for specific activities that have no more than minimal impacts to the aquatic environment. Certain categories of activities which are considered to have only minor individual or cumulative environmental impacts or which are subject to regulation by another agency, have been authorized under a nationwide permitting system. These permits are valid only if the conditions applicable to the permits are met. If the conditions cannot be met, a regional or individual permit will be required. The thresholds for the impacts and the types of activities allowed under the Nationwide Program are established as national policy. Additionally, there are regional conditions associated with each Nationwide Permit used in Georgia by the Savannah District. Further information on regional conditions is provided below.

Another type of individual permit used for very minor impacts and in special circumstances is the **Letter of Permission (LOP)**. Letters of Permission are a type of permit rarely issued by the Savannah District. A Letter of Permission, when it can be issued, is done through an abbreviated processing procedure which includes coordination with Federal and state fish and wildlife agencies in waters of the U.S. (as defined by

Section 10 of the Rivers and Harbors Act of 1899) only when the activity would not have significant individual or cumulative impacts on environmental values and should encounter no appreciable opposition (Federal Register, vol. 51, no. 219, November 13, 1986, p. 41240).

These nationwide permits are subject to public and agency review and comment every five years. During this review, a state can either authorize or deny use of any or all nationwide permits within its boundaries. If a state denies authorization of any particular nationwide permit category, an applicant must obtain an individual 401 certification from GADNR/EPD before proceeding with an activity otherwise authorized by the nationwide permit. The 2007 ACOE nationwide permits (approved on March 12, 2007 with corrections on May 8, 2007) can be found at www.sas.usace.army.mil/permit.htm. An ACOE summary table of the 2007 nationwide permits is provided at the National ACOE website: www.usace.army.mil/cw/cecwo/reg/nwp/2007nwp_sum_table.pdf. The ACOE Savannah District's 2007 Nationwide Permit Regional Conditions are provided in Attachment 3. These nationwide and regional conditions remain in effect for five years unless otherwise revoked.

As mentioned previously, the ACOE makes the determination as to whether any particular application is authorized by a nationwide permit or whether an individual permit is required. Currently, there are 50 (#26 category is reserved) categories of activities authorized by nationwide permits (NWP), however, some have no application in Georgia because they apply to activities such as:

- #24 - Indian Tribe or State Administered Section 404 Program; and
- #34 – Cranberry Production Activities

which do not occur in the state. Each NWP has its own reference number shown in parentheses on the list which comes from the subsection of the federal regulations authorizing the activity. For example, utility line crossings of waters of the U.S. are authorized by "33 CFR Part 330 Appendix A (B) 12". Thus, more simply, it can be referred to as NWP (12).

Some of the activities authorized by NWPs require a pre-construction notification (PCN) to the ACOE Savannah District before commencing with the work. This notification requirement to the ACOE is necessitated to ensure that activities authorized by these NWPs have minimal individual and cumulative adverse impacts on the aquatic environment. The applicant cannot proceed with the work until a response has been received from the ACOE which verifies an authorization under the permit and also contains any conditions that must be met.

Activities that do not require a PCN can sometimes be undertaken without contacting the ACOE but it is always in the applicant's best interest to do so. There are conditions that apply to all NWPs and the ACOE will send written notification of what those are for any particular situation. There are also sometimes permits which do not require a PCN but may require an individual 401 certification.

All 404 permits require a 401 Water Quality Certification from the GADNR before they can be issued by the ACOE. This includes all individual, general, and nationwide permits. If the GADNR/EPD denies or conditions any permit, the ACOE is required to also deny the 404 permit or attach the same conditions as conditions of the permit. An individual 401 certification must be obtained from the GADNR/EPD in all those circumstances where the 401 has been denied before proceeding with the project.

There are conditions that must be met for many of the nationwide permits to be valid. For example, the discharge cannot be in the vicinity of a public water supply intake, cannot interfere with fish migration, cannot adversely affect threatened or endangered species, or cannot contain toxic or hazardous materials. Furthermore, nationwide permits do not grant any property rights or exclusive privileges nor do they authorize any injury to the property or rights of others.

Activities covered by nationwide permits account for the majority of all activities the ACOE receives applications for or notifications about. This abbreviated process however, does result in a lower level of environmental protection and increases the need for "best management practices". For this reason, many of the BMPs developed by the GADNR's Coastal Nonpoint Pollution Control Program (EPD) or Coastal Management Program (CRD) are meant to be practices which can be implemented when operating under authorization of a nationwide permit. In fact, some States' BMPs have been incorporated as general 401 conditions on all nationwide permits.

Water quality certification is not required for NWPs 1, 2, 8, 9, 10, 11, 24, 28 and 35 because they are authorized only under Section 10 of the Rivers and Harbors Act of 1899. However, the remaining NWPs receive Section 401 water quality certification deemed as necessary to protect Georgia's water quality as authorized under Section 401 of the Clean Water Act.

For nationwide permits that have received water quality certification by EPD or where water quality certification has been waived, no individual water quality certification is necessary. For those nationwide permits which were conditioned upon the individual review of water quality certification by EPD, or which have been denied by EPD, state water quality certification for an individual proposed activity shall be dealt with as stated under "Individual Permits".

Regional Permits

Regional General Permits (GPs) are specific to the Savannah District for waters and wetlands of Georgia, and the associated conditions are established by the District.

Regional conditions are established by the Savannah District and approved by the Corps Division to ensure that the implementation of the nationwide permit program in waters and wetlands of Georgia are consistent with meeting the program's goals of streamlining the permit process for those activities that have no more than minimal impacts to the

environment. Georgia's 401 water quality certification coordinator reviews and provides suggestions on the regional conditions during the five-year nationwide permit review process.

Regional permits are issued by the ACOE District Engineer for a general category of activities when:

1. The activities are similar in nature and cause minimal environmental impact (both individually and cumulatively); and
2. The regional permit reduces duplication of regulatory control by State and Federal agencies.

Regional permits work very much the same way as nationwides. They usually apply to very specific types of activities or structures that are constructed on a routine basis but are not authorized by one of the nationwide permits. They can be issued to a single agency or organization or authorized for use by the general public. Most of the regional permits are issued on a statewide basis and permits established for use in Georgia can only be applied in Georgia.

The process to establish a regional permit is the same as an application for an individual permit. An application is made to the ACOE which describes the activity for consideration. The same process for environmental review, public notice and water quality certification occurs. If approved, the covered activities are authorized for a period of five years after which time the regional permit must be reauthorized or dropped. Any projects which meet the stipulations of the regional permit can then be authorized without the more extensive review associated with an individual permit.

There are currently three regional permits established for use in Georgia and fall within the geographic limits of Georgia's COE Savannah District. The following provides a brief explanation of the three five-year regional permits.

A. Description of the Regional Permit No. 001: Regional Permit for Minor Discharges for the Construction of Roads and Bridges

On the recommendation of the Chief of Engineers, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), a Regional Permit as outlined herein is hereby given to Federal, state, city, county and municipal road-building authorities. **Use of this RP is excluded in tidal waters.** To potentially qualify for this Regional Permit (RP), the proposed discharge of dredged and fill material incidental to roadway and bridge construction must result in the loss of less than 1 acre of waters of the United States and/or 300 feet of intermittent or perennial stream, within the geographic limits of the State of Georgia. This permit will expire on December 12, 2006.

B. Description of Regional Permit No. 90: Regional Permit for Private Single Family Non-commercial Recreational Ponds (Less than Five Acres in Size)

On the recommendation of the Chief of Engineers, pursuant to Section 404 of the Clean Water Act (33 USC 1344), authority is hereby given to discharge dredged and/or fill material incidental to the construction of private single family, non-commercial, recreational ponds (less than five acres in size) in non-tidal waters of the United States, in the State of Georgia. This Regional Permit **cannot** be used for stormwater detention and/or retention ponds, sediment ponds, irrigation ponds, or ponds for wastewater treatment or waste disposal. This Regional Permit **cannot** be used for multiple ponds on a single tract of land. Individual project impacts will total no more than two acres of jurisdictional waters of the US and/or 500 linear feet of intermittent or perennial stream. The impact area includes any waters of the US (waters) impacted by dams, berms, impounded areas, and any associated fill and/or sidecast. Also included would be those waters impacted by excavation, where the excavation is determined to be a regulated discharge. This permit will expire on May 16, 2012.

C. Description of Revised Programmatic General Permit PGP0083: Programmatic General Permit for Private Single Family Docks in the Eleven Coastal Counties.

This Programmatic General Permit has been issued pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), to authorize construction and maintenance of private residential, single-family, non-commercial recreational docks. The permit includes fixed walkways, fixed docks, boathoists, connecting ramps, floating docks, piling, and screened dock houses, for which a Revocable (Real Estate) License has been issued by the State of Georgia and a municipal or county Building Permit is obtained, if required. The authority is given to the GANDR CRD to administer the Programmatic General Permit.

5.3 Coastal Zone Management Act Federal Consistency

For some permits in the coastal counties, a Coastal Zone Management Act (CZMA) consistency determination must also be obtained in conjunction with obtaining an ACOE permit. The CZMA is the Congressional plan for managing America's coasts. It was enacted to encourage the participation and cooperation of state, local, regional, and federal agencies and governments affecting the coastal zone. The CZMA is the only environmental program that requires a balance between economic development and resource protection within the coastal zone. The GADNR Coastal Management Program implements the Coastal Zone Management Act (CZMA) for Georgia.

The act allows states to develop a Coastal Zone Management Plan (CZMP) in which they define permissible land and water use within the state coastal zone. This coastal zone extends three miles seaward and inland as far as necessary to protect the coast. The federal consistency requirement of the CZMA (as outlined in Section 307) requires that federal actions that are likely to affect any land or water in the coastal zone must be consistent with the state's coastal management program.

States use the consistency requirement to address effects on coastal uses or resources that are the result of federal actions. Federal actions include federal agency activities, federal approval activities, and financial assistance activities. This “effects test” also includes reasonably foreseeable effects in the coastal zone that could occur from activities conducted outside of the coastal zone.

Under NOAA’s Federal Consistency provisions (15 CFR 930), federal agencies must determine if their proposed project directly affects Georgia’s coastal zone. Cumulative and secondary effects must be included. Georgia’s coastal zone includes the following counties:

- Brantley
- Bryan
- Camden
- Charlton
- Chatham
- Effingham
- Glynn
- Liberty
- Long
- McIntosh
- Wayne.

Enforceable policies that may require a permit/license include:

- Air Quality Act
- Coastal Marshlands Protection Act
- Comprehensive Solid Waste Management Act
- Erosion and Sedimentation Control Act (including buffer variances where applicable)
- Groundwater Use Act
- Hazardous Waste Management Act
- Programmatic General Permits for docks
- Revocable License Program
- Septic Tank Law
- Shore Protection Act
- Surface Mining Act
- Underground Storage Tank Act
- Water Quality Control Act; and
- Water Wells Standards Act.

Generally, when a federal permit program has been delegated to the State of Georgia, state implementation of the federal permit is not subject to the federal consistency process. For example, the EPA delegated the NPDES permit program in Georgia to the

State. When Georgia issues its NPDES permit, federal consistency does not apply as the permit is no longer a federal permit, but is a state permit.

With respect to the Section 401 Water Quality Certification Program, while Section 401 of the federal CWA gives Georgia the ability to certify that a federally-permitted activity will comply with State water quality standards and other appropriate requirements of State law set forth in the certification, the underlying federal permits (e.g., Clean Water Act Section 404 permits) are still subject to federal consistency. Also, for direct federal activities, the issuance of a State 401 Water Quality Certification would not necessarily mean that the activity was consistent with other relevant State Coastal Management Program policies. Therefore, where applicable, intra-agency staff collaboration regarding permit review and federal consistency during 401 water quality certification review is necessary.

For more information regarding Georgia's federal consistency determination guidance, consult the *State of Georgia Coastal Management Program and Program Document* (June 2003) (website: <http://crd.dnr.state.ga.us/assets/documents/GCMP.pdf>).

Attachment 2.

JOINT APPLICATION
FOR
A DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS PERMIT,
STATE OF GEORGIA MARSHLAND PROTECTION PERMIT,
REVOCABLE LICENSE AGREEMENT
AND REQUEST FOR
WATER QUALITY CERTIFICATION
AS APPLICABLE

INSTRUCTIONS FOR SUBMITTING APPLICATION:

Every Applicant is Responsible to Complete The Permit Application and Submit as Follows: One copy each of application, location map, drawings, copy of deed and any other supporting information to addresses 1, 2, and 3 below. If water quality certification is required, send only application, location map and drawing to address No. 4.

1. For Department of the Army Permit, mail to: Commander, U.S. Army Engineer District, Savannah ATTN: CESAS-OP-F, P.O. Box 889, Savannah, Georgia 31402-0889. Phone (912)652-5347 and/or toll free, Nationwide 1-800-448-2402.

2. For State Permit - State of Georgia (six coastal counties only) mail to: Habitat Management Program, Coastal Resources Division, Georgia Department of Natural Resources, 1 Conservation Way, Brunswick, Georgia 31523. Phone (912) 264-7218.

3. For Revocable License - State of Georgia (six coastal counties plus Effingham, Long, Wayne, Brantley and Charlton counties only) - Request must have State of Georgia's assent or a waiver authorizing the use of State owned lands. All applications for dock permits in the coastal counties, or for docks located in tidally influenced waters in the counties listed above need to be submitted to Real Estate Unit. In addition to instructions above, you must send two signed form letters regarding revocable license agreement to: Ecological Services Coastal Resources Division, Georgia Department of Natural Resources, 1 Conservation Way, Brunswick, Georgia 31523. Phone (912) 264-7218.

4. For Water Quality Certification State of Georgia, mail to: Water Protection Branch, Environmental Protection Division, Georgia Department of Natural Resources, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354 (404) 675-1631.

The application must be signed by the person authorized to undertake the proposed activity. The applicant must be the owner of the property or be the lessee or have the authority to perform the activity requested. Evidence of the above may be furnished by copy of the deed or other instrument as may be appropriate. The application may be signed by a duly authorized agent if accompanied by a statement from the applicant designating the agent. See item 6, page 2.

1. Application No. _____
2. Date _____
3. For Official Use Only _____
4. Name and address of applicant.
5. Location where the proposed activity exists or will occur.

Lat. _____ Long. _____

_____	_____	_____
County	Military District	In City or Town
_____	_____	_____
Near City or Town	Subdivision	Lot No.
_____	_____	_____
Lot Size	Approximate Elevation of Lot	State
_____	_____	
Name of Waterway	Name of Nearest Creek, River, Sound, Bay or Hammock	

_____ Signature of Applicant	_____ Date
---------------------------------	---------------

8. Proposed use: Private _____ Public _____ Commercial _____ Other _____ (Explain)

10. Date activity is proposed to commence. _____

Date activity is expected to be completed. _____

11. Is any portion of the activity for which authorization is sought now complete Y N

A. If answer is "Yes", give reasons in the remarks in the remarks section. Indicate the existing work on the drawings.

B. If the fill or work is existing, indicate date of commencement and completion.

C. If not completed, indicate percentage completed.

12. List of approvals or certifications required by other Federal, State or local agencies for any structures, construction discharges, deposits or other activities described in this application. Please show zoning approval or status of zoning for this project.

<u>Issuing Agency</u>	<u>Type Approval</u>	<u>Identification No.</u>	<u>Date/Application</u>	<u>Date/Approval</u>
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13. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein?
_____ Yes _____ NO (If "yes", explain).

Note: Items 14 and 15 are to be completed if you want to bulkhead, dredge or fill.

14. Description of operation: (If feasible, this information should be shown on the drawing).

A. Purpose of excavation or fill _____.

1. Access channel length_____ depth_____ width_____

2. Boat basin length_____ depth_____ width_____

3. Fill area length_____ depth_____ width_____

4. Other _____ length_____ depth_____ width_____

(Note: If channel, give reasons for need of dimensions listed above.)

B. 1.If bulkhead, give dimensions _____

2.Type of bulkhead construction (material)_____

Backfill required: Yes _____ No _____ Cubic yards _____

Where obtained _____

C. Excavated material

1.Cubic yards _____

2.Type of material _____

15.Type of construction equipment to be used _____

A. Does the area to be excavated include any wetland? Yes____ No____

B. Does the disposal area contain any wetland? Yes____ No____

C. Location of disposal area_____

D. Maintenance dredging, estimated amounts, frequency, and disposal sites to be utilized:_____

E. Will dredged material be entrapped or encased?_____

F. Will wetlands be crossed in transporting equipment to project site?_____

G. Present rate of shoreline erosion (if known) _____

16. WATER QUALITY CERTIFICATION: In some cases, Federal law requires that a Water Quality Certification from the State of Georgia be obtained prior to issuance of a Federal license or permit. Applicability of this requirement to any specific project is determined by the permitting Federal agency. The information requested below is generally sufficient for the Georgia Environmental Protection Division to issue such a certification if required. Any item which is not applicable to a specific project should be so marked. Additional information will be requested if needed.

A. Please submit the following:

1. A plan showing the location and size of any facility, existing or proposed, for handling any sanitary or industrial waste waters generally on your property.

2. A plan of the existing or proposed project and your adjacent property for which permits are being requested.

3. A plan showing the location of all points where petro-chemical products (gasoline, oils, cleaners) used and stored. Any above-ground storage areas must be diked, and there should be no storm drain catch basins within the diked areas. All valving arrangements on any petro-chemical transfer lines should be shown.

4. A contingency plan delineating action to be taken by you in the event of spillage of petro-chemical products or other materials from your operation.

5. Plan and profile drawings showing limits of areas to be dredged, areas to be used for placement of spoil, locations of any dikes to be constructed showing locations of any weir(s), and typical cross sections of the dikes.

B. Please provide the following statements:

1. A statement that all activities will be performed in a manner to minimize turbidity in the stream.

2. A statement that there will be no oils or other pollutants released from the proposed activities which will reach the stream.

3. A statement that all work performed during construction will be done in a manner to prevent interference with any legitimate water uses.

17. Application is hereby made for a permit or permits to authorize the activities described herein, Water Quality Certification from the Georgia Environmental Protection Division is also requested if needed. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant

18. U.S.C. Section 1001 provides that: Whoever, in any matter within the jurisdiction of any department or agency of the United States, knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations, or makes or uses false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined no more than \$10,000 or imprisoned not more than 5 years or both.

PRIVACY ACT NOTICE

The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. These laws require permits authorizing structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Information provided will be used in evaluating the application for a permit. Information in the application is made a matter of public record through issuance of a public notice. Disclosure of the information requested is voluntary, however, the data requested are necessary in order to communicate with the applicant and to evaluate the permit application. If necessary information is not provided, the permit application cannot be processed nor can a permit be issued.

SUPPORTING REMARKS:

Attachment 3.
SAVANNAH DISTRICT
2007 NATIONWIDE PERMIT REGIONAL CONDITIONS

A. Pre-Construction Notification (PCN) Required:

1. A PCN is required for all use of Nationwide Permits (NWP) 3(b), 7, 8, 10, 11, 15, 12, 14, 17, 21, 23, 27, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, A, B, D, E, and F.
2. A PCN is required for use of NWP 13 for a project in a perennial stream, and for projects described in Regional Conditions (RC) A.4 and A.5 below.
3. A PCN is required for use of NWP 18 for projects that involve the placement of more than 10 cubic yards of fill material in waters of the United States (US), below the ordinary high water mark, and for projects listed in RC A.5 below.
4. A PCN is required for use of NWPs 3(a), 3(c), 5, 6, 13, 19, 41 and C, in all waters, if the project would impact 1/10th acre or more of wetlands/open water and/or 100 linear feet or more of stream. {NOTE: Unless a particular category of stream is identified in a RC, the term “stream” includes all three categories of stream; ephemeral, intermittent and perennial.}
5. A PCN is required for use of NWPs 2, 5, 9, 13, 18, 19, 22, 25 and 28, in tidal waters that are regulated by Georgia Department of Natural Resource, Coastal Resources Division (GACRD) in one of the 11 coastal Georgia Counties (Bryan, Brantley, Burke, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, McIntosh and Wayne). For the purposes of this RC, a PCN is only required if the project is regulated by GACRD.
6. A PCN is required for use of any NWP for a project that is within 2000 feet of a National Wildlife Refuge, any National Park Service Property, a National Estuarine Research Reserve, a Georgia State Park or an approved mitigation bank.

B. Information Required for a PCN to be Considered Complete for Processing:

[NOTE: 45-day review process will not begin until the USACE determines a PCN complete]

1. A completed copy of the attached “Savannah District Pre-Construction Notification Form” (Enclosure 1), or the most recent revision of this form.
2. Information requested at NWP General Condition (GC) 27.
3. A discussion of why further measures to avoid/minimize impacts to the aquatic ecosystem are not practicable.

4. A statement regarding if endangered species are known to be present on the project site and if a survey has been performed.

http://athens.fws.gov/endangered/counties_endangered.html

5. A statement regarding if cultural resources are known to be present on or near the project site and if a survey has been performed. <http://www.nr.nps.gov/>

6. A statement regarding whether the city, county or state requires a water quality management plan for the project site prior to construction.

7. A statement that the project would comply with any applicable Federal Emergency Management Administration-approved state or local floodplain management requirements. www.fema.gov/

8. A statement as to whether the project is located in or adjacent to a State 303(d) listed stream and if so, the name of the stream. www.epa.gov/surf/

9. A statement as to whether a project is located in or adjacent to a State designated trout stream or water. www.dnr.state.ga.us.

10. An appropriate detailed compensatory mitigation plan, if required, that is in accordance with GC 20 and the most recent approved version of the Savannah District “Standard Operating Procedure, Compensatory Mitigation, Wetlands, Openwater & Streams.” For site-specific mitigation plans, sufficient information must be included to document that the proposed mitigation would adequately compensate for all wetland/stream impacts. Plans that propose use of an approved commercial mitigation bank or use of in-lieu-fee banking must also document that the mitigation (i.e., credit) would compensate for all wetland/stream impacts.

11. For a project that would impact waters regulated by GACRD, in one of the 11 coastal Georgia counties, a completed copy of the “State of Georgia Revocable License Request” form (Enclosure 2) must be attached to the PCN, or written confirmation from GACRD that a Revocable License is not required. For any project requiring a Revocable License, copy of the PCN must be also be submitted to GACRD. <http://crd.dnr.state.ga.us/>.

12. For a project that would impact a stream subject to the jurisdiction of the Georgia Department of Natural Resources, Environmental Protection Division (GAEPD), a copy of the Stream Buffer Variance application form submitted to GAEPD must be attached to the PCN, or a copy of the letter sent to GAEPD requesting confirmation that a Stream Buffer Variance is not required for the project. www.gaepd.org.

13. A PCN for a project that includes use of culverts must also include the following information: (a) culvert type; (b) culvert size; (c) depth to which culvert will be embedded; (d) culvert design, if multi-barreled; and (e) floodplain cluverting, if required.

14. A PCN for a project that includes the construction of a storm water detention/retention facility in waters of the US must also include the following information:

- a. A clear statement of the basic (primary) purpose of the detention/retention facility.
- b. A description of the upland-based facility/system that will be utilized to pre-treat storm water prior to discharge into the in-stream detention/retention facility.
- c. A detailed alternatives analysis pursuant to the Section 404(b)(1) Guidelines of the Clean Water Act. This analysis must demonstrate that all other available stormwater and sediment/erosion treatment controls will be implemented and that in-stream detention/retention is the available practicable alternative available that would meet the basic project purpose. This analysis should also include all project site specific factors that may render other stormwater detention/retention measures impractical, such as: steep slopes; rock substrate; narrow floodplain; and pre-existing development.

15. A PCN for use of NWPS 7, 12, 14, 18, 21, 27, 29, 34, 38, 39, 41, 42 and 43 must include a wetland delineation.

16. A PCN for use of NWP 21 must include an Office of Surface Mining approved mitigation plan.

17. A PCN for use of NWP 27 must document the prior condition of the site.

18. A PCN for use of NWP 31 must include sufficient baseline information on the channel, a delineation of wetlands and location of disposal site.

19. A PCN for use of NWP 33 must include a restoration plan.

20. A PCN for use of NWP 35 must also include information regarding the potential for the sediment proposed to be dredged to be contaminated. The PCN will not be considered complete until the Savannah District has made a determination as to the need for testing of the material in accordance with the Inland Testing Manual.

21. A PCN for use of NWP 43 for a new facility must include a maintenance plan.

22. A PCN for use of NWP 44 must include a description of all waters impacted, measure taken to minimize impact and a reclamation plan.

C. Restrictions:

1. NWPs cannot be used to authorize a storm water detention/retention facility in a perennial stream. An individual Department of the Army permit application is required for these projects.

2. NWP's cannot be used to authorize a storm water detention/retention facility in a State designated trout stream or water. An individual Department of the Army permit application is required for these projects.

3. NWP's cannot be used to authorize projects that would impact compensatory mitigation sites or an approved compensatory mitigation bank, unless that project's purpose is to enhance the mitigation site or bank. An individual Department of the Army permit application is required for these projects.

4. All work conducted under the NWP's shall be located, outlined, designed, constructed and operated in accordance with the requirements as contained in the Georgia Erosion and Sedimentation Control Act of 1975, as amended. Utilization of plans and specifications as contained in "Manual for Erosion and Sediment Control, (Latest Edition)," published by the Georgia Soil and Water Conservation Commission or their equivalent, will aid in achieving compliance with the aforementioned requirements. The latest edition of the manual can be accessed at www.gaswcc.org.

5. No work shall be conducted under any NWP that requires discharge of wet or otherwise uncured concrete below the ordinary high water mark unless the concrete is contained within waterproof forms until the concrete cures.

6. Use of NWP's 12, 14, 33, 43 and 44 is prohibited for any project in waters of the US that support anadromous fish, or in those waters that previously supported such fish and where restoration of fish migrations and populations is possible. The established limits for these waters are listed in the attached Enclosure 2 and include adjacent and tributary waters located within 1000 feet of these identified waters. This prohibition does not apply to NWP 12 projects that would not involve a discharge of dredged or fill material or mechanized land clearing in waters (i.e. directional bore line installation and overhead utility crossings). Exemption from this condition will be considered on a case-by-case basis, in coordination with the National Marine Fisheries Service. An exemption may be granted when it is determined that the project would have minimal impact on anadromous fish or their restoration.

D. Mitigation:

1. The Savannah District "Standard Operating Procedure, Compensatory Mitigation, Wetlands, Openwater & Streams (SOP)" must be used to calculate compensatory mitigation credits necessary for all uses of NWP's that would require compensatory mitigation.

2. Compensatory mitigation is required for the use of any NWP for a project that would result in an adverse impact to and/or the loss of 1/10th acre or more of wetlands and/or the loss of 100 linear feet or more of non-tidal stream. Adverse impacts to waters of the US include activities that result in a temporary loss in function and do not result in permanent conversion of one aquatic resource type to another (e.g., placement of rip-rap

on a stream bank; or construction of a buried utility line in all types of wetland, where the wetland is restored to its preconstruction contours). A loss of waters of the US includes all filled areas and areas permanently adversely affected by flooding, excavation or drainage (e.g., installation of a culvert/pipe in a stream; construction of a dam and resulting impoundment on a stream; excavation of a pond in a wetland). The US Army Corps of Engineers has discretion to determine if work would result in an impact to or a loss of waters of the US.

3. For a project that involves an impact to and/or loss of wetlands and streams, if either the 1/10th acre or 100 linear foot threshold is met, compensatory mitigation is required for all impacts and losses.

4. Compensatory mitigation plans must be in accordance with GC 20 and the most recent approved version of the SOP. For site-specific mitigation plans, sufficient information must be included to document that the proposed mitigation would adequately compensate for all wetland/stream impacts. Plans that propose use of an approved commercial mitigation bank or use of in-lieu-fee banking must also document that the mitigation (i.e., credit) would compensate for all wetland/stream impacts.

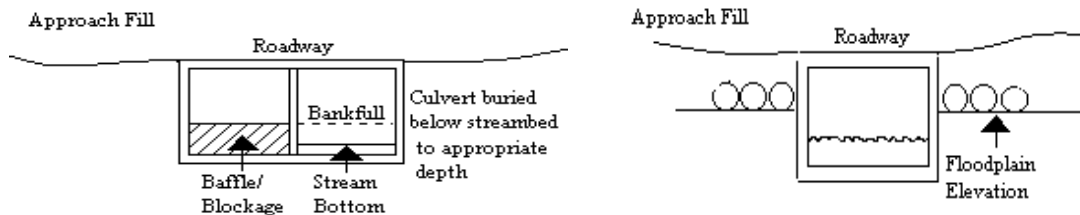
5. The use of in-lieu-fee banking is not appropriate if commercial mitigation bank credits are available for a project site. For projects where no commercial bank credits are available, and the mitigation plan includes the proposed use of in-lieu-fee mitigation, the plan must include either: (1) a statement that no bank services the project site; or (2) the name(s) of the mitigation bank(s) contacted, the date of contact, and a statement that the banker(s) confirmed that no credits were available. The following conversion factors will be used to convert SOP credit requirements to in-lieu-fee mitigation acre requirements: (a) SOP wetland credits x 0.875 = in-lieu-fee wetland acres; and (b) SOP stream credits x 0.0023 = in-lieu-fee stream acres.

6. All impacts to wetlands and open waters must be calculated and reported in acres. Stream impacts must be calculated separately and reported in both linear feet and acres.

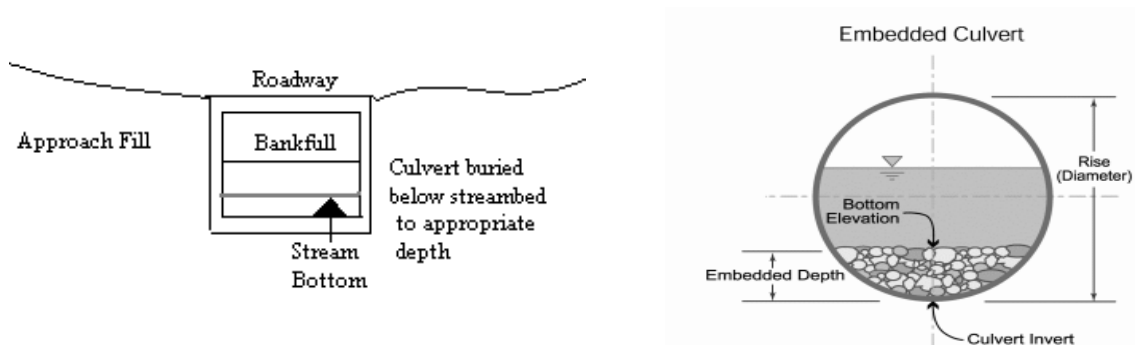
7. For NWP that have both an acre limit loss of waters of the US and a linear foot stream loss limit, the acreage of stream loss (i.e., the length of the stream bed filled or excavated times the average width of the stream, from the ordinary high water mark (OHWM) to OHWM) applies towards that acre limit loss of waters of the US). For example, if a proposed NWP 39 activity involves filling 1/10th acre of wetlands and 100 linear feet of a stream bed with an average width of 10 feet, the acreage loss of waters of the US for that activity would be calculated as follows: $0.1 + [(100 \times 10) / 43,560] = 0.123$ acre.

E. All NWP Culverts:

1. Measures will be included in culvert construction that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be permanently modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity.
2. For any crossing of a perennial stream, where use of a culvert is proposed, an alternatives analysis must be prepared and submitted with the PCN. This analysis must document why the use of an arch-span, bottomless culvert or bridging would not be a practicable alternative. At a minimum, a comparison of construction and compensatory mitigation costs for these alternatives must be provided.
3. Bank-full flows shall be accommodated through maintenance of the existing bank-full channel cross sectional area. Additional culverts at such crossings shall be allowed only to receive flows exceeding bank-full.



4. Unless clearly demonstrated that it would not be practicable, the upstream and downstream invert of culverts (except bottomless culverts) installed in perennial streams will be buried/ embedded to a depth of 20 percent of the culvert diameter (20 percent of the height of elliptical culverts), to allow natural substrate to colonize the structure's bottom, encourage fish movement and maintain the existing channel slope. Culvert slope should not exceed 4 percent.



5. Where adjacent floodplain is available, flows exceeding bank-full should be accommodated by installing culverts at the floodplain elevation.

6. A waiver from the above culvert specifications may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with these specifications would result in more adverse impacts to the aquatic environment.

F. NWP Specific Conditions:

1. NWP 3(b). Excavation of accumulated sediment or other material is not authorized by this NWP in areas adjacent to existing private or commercial dock facilities, piers, canals dug for boating access, marinas, boat ramps, or boat slips.

2. NWP 3(b). Use of rip-rap will not exceed an average of one cubic yard per running foot placed below the ordinary high water mark or the high tide line, unless the criterion is waived in writing by the District Engineer, or his assigned delegate.

3. NWP 4. Use of mechanized harvesting devices is prohibited.

4. NWP 7. Associated intake structures must employ the best practicable means to minimize entrainment or impingement of fish and other aquatic life, and the inflow velocity of intake structures is limited to not more than 0.5 foot per second.

5. NWP 7. For the purposes of this NWP, activities related to the construction of outfall structures means activities in the immediate vicinity which are necessary to construct or operate the outfall (e.g., pumps, rip rap, coffer dam). This does not include ancillary activities such as construction access roads, utility lines, buildings, etc.

6. NWP 12. Utility lines must be aligned to minimize the length of wetland/stream crossings, and/or to minimize impacts to wetlands/streams.

7. NWP 12. For buried utility lines, right-of-way corridor widths cannot exceed 50 feet in wetlands, or any applicable Federal Energy Regulatory Commission standards.

8. NWP 12. Construction of individual pump stations is limited to 1/10 acre of wetland impact; substations cannot be constructed within the banks of a stream.

9. NWP 12. Excavated material that is temporarily side cast in waters of the US shall be returned to the trench or removed within 60 days, unless a 30-day extension is requested and approved by the District Engineer, or his assigned delegate.

10. NWP 12. In wetlands, excavated material shall be returned to the trench and any remaining material shall be relocated to an approved disposal site. Substrate containing roots, rhizomes, seeds, etc., must be kept viable and replaced at the surface of the excavated site. Where impacted wetlands are allowed to naturally re-vegetate and/or replanted with native wetland species, the SOP contains allowances for a reduction in mitigation requirements,. Stream banks that are cleared of vegetation shall be stabilized with deep-rooted native species similar to nearby reference sites. Each individual

wetland/stream project shall be stabilized immediately following completion of utility line placement at that project.

11. NWP 12. Anti-seep collars, or other structures designed to prevent under-draining, will be installed on all buried utility lines in wetlands. If no anti-seep/drain device(s) is proposed, the applicant must provide information documenting that such a device is not required to prevent wetland drainage.

12. NWP 12. Isolation methods (flume/coffer dam or pumped diversion) will be used to install utility lines in perennial streams. Flume/coffer dam isolation methods may include aqua-dams, pea gravel, sand bags, cured concrete blocks, steel or wood wall, sheet pile, or similar design. Flume/coffer dam isolation should be done in stages, moving dams as needed so that downstream reaches are not dewatered. Material to build granular coffer dams should be clean and washed, and should not be taken from the stream channel. Pumped diversion should not be used where there are fish passage concerns; before pumping water from the work area, fish should be salvaged from the isolated area and returned safely to the downstream portion of the watercourse. The area where the pump discharges should be lined with clean rock to prevent erosion and release of suspended sediments downstream. For both methods, streambanks should be stabilized with geotextile fabric, at a minimum, before the isolation methods are removed.

13. NWP 14. For the purpose of calculating cumulative loss of waters of the US resulting from linear road projects, the geographic area of consideration will be an individual "State of Georgia Hydrologic Map Cataloging Unit (i.e., 8-Digit Unit)." A linear road project would include all losses of waters of the US along a continuous corridor between logical end points. If the cumulative loss from a linear road project is 1/10th or more acre of wetland and/or 100 or more linear feet of stream within a Cataloging Unit, compensatory mitigation is required for all impacts to wetlands and streams from this project within that Cataloging Unit. The cumulative loss of waters of the United States for a linear road project in a Cataloging Unit cannot exceed 10 acres of wetlands and/or 1500 linear feet of stream. For linear road project cumulative loss calculations, the acreage of stream loss will not be included in the 10 acre limit.

14. NWP 14. An individual public road project cannot result in the loss of 300 or more linear feet of perennial stream.

15. NWP 14. Ditches and medians associated with road projects must be designed to prevent drainage of wetlands, and finished road elevations cannot be lower than surrounding wetlands.

16. NWP 14. All wetland projects must extend between previously existing natural high ground locations.

17. NWP 14 & 42. Adequately spaced and sized culverts must be placed at all wetland and adjacent floodplain projects. Culverts shall be of adequate size to

accommodate flooding and sheet flow in a manner that does not cause flooding of associated uplands or disruption of hydrologic characteristics that support aquatic sites on either side of the project. Use of undersized culverts to attain stormwater management or waste treatment is not authorized under these NWP. (NOTE: See RC 25 for and GC 21 for additional information with regard to requirements for maintenance of flood flows and wetland connection.)

18. NWP 23. This NWP cannot be used for projects that would impact more than 500 linear feet of stream or 1.5 acres of wetlands at any one site/project or for linear projects that would impact more than 1,500 feet of stream or 10 acres of wetlands over multiple projects within a Cataloging Unit.

19. NWP 37. All projects authorized under NWP 37 must be under construction or under contract for construction within 1 year of authorization. If not, the permittee will have to obtain a new permit for the project.

20. NWP 37. This NWP cannot be used for projects that involve removal of debris other than in the immediate up and downstream reaches (300 feet) adjacent to bridges and other stream crossings; bank clearing which involves complete removal of trees and/or removal of logs/dead trees which are buried in the bank; channel deepening beyond original bottom; and/or levee construction.

21. NWP 41. Use of NWP 41 is prohibited for projects that would cause or perpetuate drainage of wetlands or waters of the US, and/or result in the removal or modification of riparian vegetation that provides shade, bank stabilization, nutrients, cover, or other features that are beneficial to fish and wildlife.

22. NWP 41. This NWP does not authorize work in natural streams that have been subjected to some previous channelization.

23. NWP 41. Excavated materials should be removed from the site. However, excavated materials may be placed on existing adjacent berms or on other previously used disposal sites, provided no additional wetlands are impacted and the material is stabilized to prevent erosion.

24. NWP 42. This NWP does not authorize golf courses or other projects that require use of herbicides, insecticides, fertilizers and/or other similar potentially toxic or hazardous materials, unless effective containment and/or barriers are to be implemented and fully maintained for the duration of the project, to prevent such contamination from entering waters of the US. The PCN must include documentation of compliance with this condition.

25. NWP 43. A stormwater management facility cannot result in the loss of more than 1/3 acre of wetlands. Cumulative project related wetland impacts, including permanent, temporary, and/or secondary impacts (e.g., temporary storm water retention) are limited to 1 acre of wetlands. Impacts that result in the conversion of forested wetlands to a

scrub shrub, emergent or some other shallow water wetland community are not considered temporary and/or secondary.

26. NWP A. All work associated with repair, rehabilitation or replacement of structures or fills must be completed within two years of the storm, flood, fire or other discrete event.

Enclosures

1. Pre-Construction Notification Form
2. List of Anadromous Fisheries Waters

Useful Websites:

www.sas.usace.army.mil/permit.htm

<http://www.nr.nps.gov/>

http://athens.fws.gov/endangered/counties_endangered.html

www.usace.army.mil

www.gaswcc.org

www.fema.gov/

<http://crd.dnr.state.ga.us/>

www.epa.gov/surf/

www.dnr.state.ga.us

Chapter 6. Provisions of Georgia State Laws in the 401 Certification Process

6.1 Need for Georgia 401 Certification Implementing Regulations or Guidelines

At present, the State of Georgia has not developed 401 certification implementing regulations or guidelines. This important regulatory tool is discussed at length in the *EPA 1989 Handbook*. As stated in the document:

“A comprehensive set of 401 certification implementing regulations would have both procedural and substantive provisions which maximize the State agency’s control over the process and which make its decisions defensible in court. When 401 certification regulations are carefully considered, they can be very effective not only in conserving the quality of the State’s waters, but in providing the regulatory sectors with some predictability of State actions, and in minimizing the State’s financial and human resource requirements as well.”

Attachment 4 provides a general template for development of sound 401 certification implementing regulations and further water quality standards that will enhance wetland protection. More discussion on this important objective is provided in Chapter 9. Several different options within Chapter 9 are provided to work toward achieving this necessary task.

Attachment 4.

Developing 401 Certification Implementing Regulations

The U.S. EPA Handbook entitled “Wetlands and 401 Certification: Opportunities and Guidelines for States and Eligible Indian Tribes” (April 1989) provides instruction in the development of sound water quality standards and 401 certification implementing regulations that will enhance wetland protection. Much of this attachment provides text directly from the document. This attachment addresses some basic procedural considerations of 401 certification implementing regulations. These include provisions concerning the contents of an application for certification; the agency’s timeframe for review; and the requirements placed on the applicant in the certification process. It is anticipated that once the new USEPA 401 Guidance Document (draft currently titled “401 Certification: A Water Quality Protection Tool for Wetlands and Other Waters”) is provided to the public, a more extensive discussion on updated certification implementing regulations will be available. Please note that some of these provisions are being implemented in Georgia (e.g., joint public notice). However, the provisions are not incorporated at this time into a Georgia 401 certification implementing regulation.

Note: Several state examples are provided in Chapter 9 to serve as separate templates for Georgia’s consideration in the drafting of such regulations.

A comprehensive set of 401 certification implementing regulations would have both procedural and substantive provisions which would maximize Georgia's GANDR/EPD control over the process and would make its decision more easily defensible in court. The very fact of having 401 certification regulations goes a long way in providing the GADNR/EPD that implements 401 certification with credibility in the courts. Currently, the State of Georgia does not have 401 certification implementing regulations. When 401 certification regulations are carefully considered, they can be very effective not only in conserving the quality of the State's waters, but in providing the regulatory sectors with some predictability of State actions, and in minimizing the State's financial and human resource requirements as well.

Review Timeframe and Complete Applications

Under Section 401(a)(1) a State will be deemed to have waived certification if it fails to act within "a reasonable period of time (which shall not exceed one year) after receipt of such request." Program managers should keep in mind that the federal permitting or license agency may have regulations of its own which provide a time limit for the State's certification decision. For instance, ACOE regulations say that a waiver "will be deemed to occur if the certifying agency fails or refuses to act on a request for certification within thirty days after receipt...unless the district engineer determines a shorter or longer period is reasonable..." FERC rules state that a certifying agency "is deemed to have waived the certification requirement is...[it] has not denied or granted certification by one year after the date the certifying agency received the request." EPA regulations for Section 402 in non-authorized States set a limit of 60 days unless the Regional Administrator finds that unusual circumstances require a longer time.

States should coordinate closely with the appropriate federal agency on timing issues. Thus, after taking the federal agencies' regulations into account, the State's 401 certification regulations should link the timing for review to what is considered receipt of a complete application.

It is also advisable for the States to adopt rules which reasonably protect against an unintended waiver due, for example, to insufficient information to make a certification decision or because project plans have changed enough to warrant a reevaluation of the impacts on water quality. Thus, after taking the federal agencies' regulations into account, the State's 401 certification regulations should link the timing for review to what is considered receipt of a complete application.

Requirements for the Applicant

It is very important, in particular, for conserving the agency's resources and ensuring that there is sufficient information to determine that water quality standards and other

provisions of the CWA will not be violated by the activity, to clarify that it is the applicant who is responsible for providing or proving particular facts or requirements. For instance, Section 401(a)(1) requires that a State “establish procedures for public notice in the case of all applications for certification.”

A second consideration is that States should require the applicant to demonstrate the project’s compliance with applicable federal and State law and regulation. EPA’s 401 certification regulations name the sources of information a State should use as that contained in the application and other information “furnished by the applicant” sufficient to allow the agency to make a statement that water quality standards will not be violated. In addition, the regulations also refer to other information the agency may choose to examine which is not furnished by the applicant.

Permit Fees

A very significant concern for all States who plan to initiate or expand their 401 certification program is the availability of funding. Application fee requirements are a potential funding source to supplement State program budgets.

Basis for Certification Decisions

The regulations should also set out the grounds on which the decision to grant or deny certification will be based, the scope of the State’s review, and the bases for conditioning a certification. If a State has denied water quality certification for a general permit or has conditioned such a permit on some requirement of State review, the State’s 401 certification implementing regulations might also outline the obligations of a person proposing to accomplish work under such a permit. The following is a hypothetical example of regulatory language a State might use to define the grounds for the State’s decision to grant, condition, or deny certification:

In order to obtain certification of any proposed activity that may result in a discharge to waters of the United States, an applicant must demonstrate that the entire activity over its lifetime will not violate or interfere with the attainment of any limitations or standards contained in Section 301, 302, 303, 306, and 307, the federal regulations promulgated pursuant thereto, and any provisions of state law or regulation adopted pursuant to, or which are more stringent than, those provisions of the Clean Water Act.

The agency may condition certification on any requirements consistent with ensuring the applicant’s compliance with the provisions listed above, or with any other requirements of state law related to the maintenance, preservation, or enhancement of water quality.

Regulations are not project specific. They must be generally applicable to all projects subject to 401 certification review, while at the same time providing reasonable notice to an applicant regarding the general standards employed by the agency in the certification process. (A State may choose to adopt license/permit-specific regulations for 401 certification, but such regulations will still have to be applicable to all activities that may occur pursuant to that license or permit).

There are other considerations that should be addressed in 401 certification implementing regulation. These include provisions which require applicants for federal licenses and permits which may result in a discharge to apply for water quality certification; provisions which define waters of the State to include wetlands and which define other pertinent terms; and provisions addressing general permits.

6.2 State Laws Commonly Utilized in the 401 Certification Process

An appendix of state laws that may be utilized in coastal Georgia 401 water quality certification are provided throughout this chapter. However, the following provides a list of state laws that are commonly utilized in the 401 water quality certification process:

- Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6 (Revised November 2005);
- Coastal Marshlands Protection Act (*O.C.G.A. 12-5-280, et seq.*);
- Endangered Wildlife Act (*O.C.G.A. 27-3-130, et seq.*)
- Georgia Environmental Policy Act (*O.C.G.A. 12-16-1, et seq.*)
- Georgia Safe Dams Act (*O.C.G.A. 12-5-370, et seq.*)
- Georgia Scenic Rivers Act (*O.C.G.A. 12-5-350, et seq.*)
- Georgia Hazardous Waste Management Act (*O.C.G.A. 12-8-60, et seq.*)
- Georgia Natural Areas Act (*O.C.G.A. 12-3-90, et seq.*)
- Georgia Water Quality Control Act (*O.C.G.A. 12-5-20*)
- Groundwater Use Act (*O.C.G.A. 12-5-590, et seq.*)
- Shore Protection Act (*O.C.G.A. 12-5-230, et seq.*);
- Georgia Erosion and Sedimentation Act (*O.C.G.A. 12-7-1, et seq.*);
- Mountain and River Corridor Protection Act (*O.C.G.A. 12-2-1, et seq.*);
- Protection of Tidewaters Act (*O.C.G.A. 52-1-1, et seq.*)
- Growth Strategies Act of 1989;
- GANDR/WRD regulations and laws

6.3 Key State Laws Which May Be Used to Condition 401 Certification in Coastal Georgia

6.3.1 Georgia Water Quality Control Act and Rules and Regulations

The Georgia Water Quality Control Act grants the GADNR/EPD authority to ensure that water uses in the State of Georgia are used prudently, are maintained or restored to a reasonable degree of purity, and are maintained in adequate supply. In the administration of this law, the EPD can revise rules and regulations pertaining to water quality and quantity, set permit conditions and effluent limitations, and set permissible limits of surface water usage for both consumptive and non-consumptive uses through the Board of Natural Resources. Through coordination between the EPD and CRD, the rules and permits of the EPD are administered in a manner consistent with the enforceable policies of the Coastal Management Program.

The authority to regulate the rivers, streams, lakes, and subsurface waters throughout the State for public and private water supply and agricultural, industrial, and recreational uses is provided to the EPD. The Act makes it unlawful for a person to dispose of sewage, industrial wastes, or other wastes, or to withdraw, divert, or impound any surface waters of the State without a permit. Tourism and recreational entities, manufacturing and transportation facilities, and other activities found in the coastal zone covered under the policies of the Georgia Coastal Management Program are responsible for compliance with the regulations implementing the Georgia Water Quality Control Act.

The Georgia Rules and Regulations for Water Quality Control (Chapter 391-3-6 (Revised November 2005)) is, without exception, the most important legal framework within Georgia utilized to condition 401 certification. Many of the key provisions within the regulations relative to 401 certification were discussed in detail in Chapter 4. Therefore, further discussion within this chapter will be confined to the key state laws addressed below.

6.3.2 Coastal Marshlands Protection Act

The coastal marshlands of Georgia comprise a vital natural resource system. The estuarine area of Georgia is the habitat of many species of marine life and wildlife that cannot survive without the food supplied by the marshlands. The estuarine marshlands of coastal Georgia are among the richest providers of nutrients in the world.” (O.C.G.A. 12-5-280, et seq.)

The Coastal Marshlands Protection Act (CMPA or “Marsh Act”) provides the Coastal Marshlands Protection Committee (appointed by the GADNR Board) with the authority to protect tidal wetlands. The CMPA identifies specific activities normally considered to be contrary to the public interest and requires permits for erecting structures, dredging, filling, or otherwise altering marsh areas. In cases where the proposed activity involves construction on State-owned tidal water bottoms, a Revocable License issued by the CRD or a lease issued by the Committee may also be required. Marsh Permits and Revocable Licenses are not issued for activities that are inconsistent with the Georgia Coastal Management Program.

The jurisdiction of Georgia's Marsh Act extends to "coastal marshlands" which by statutory definition includes marshland, intertidal area, mudflats, tidal water bottoms, and salt marsh area within estuarine area of the state, whether or not the tidewaters reach the littoral areas through natural or artificial watercourses. The estuarine area is defined as all tidally influenced waters, marshes, and marshlands lying within a tide-elevation range from 5.6 feet above mean high-tide level and below. Exemptions from the jurisdiction of the Act include: Georgia Department of Transportation (GADOT) activities, generally; agencies of the United States charged with maintaining navigation of rivers and harbors (See Chapter Eight, "Federal Consistency"); railroad activities of public utilities companies; activities of companies regulated by the Public Service Commission; activities incident to water and sewer pipelines; and, construction of private docks that don't obstruct tidal flow.

Any agricultural or silvicultural activity that directly alters lands within the jurisdictional areas of the CMPA must meet the permit requirements of the Act and must obtain a permit issued by the CRD on behalf of the Coastal Marshlands Protection Committee. Permits for marinas, community docks, boat ramps, recreational docks, and piers within the jurisdiction of the CMPA are administered by the CRD. To construct and operate a marina, a marina lease is required. Private-use recreational docks are exempt from the CMPA but must obtain a Revocable License and a State Programmatic General Permit.

6.3.2.1 New Regulations for Upland Component of Projects Permitted Under Coastal Marshlands Protection Act

In February 2007, the Board of Natural Resources adopted new coastal marshlands protection rules. These rules included a 50 foot marshlands buffer which will apply to the upland component of a project being permitted under the Marsh Act. In adopting those rules, the Board tasked the GADNR to immediately begin development of an exception to the 50 foot marshlands buffer, to be applied by the Coastal Marshlands Protection Committee in extraordinary or exceptional situations where a substantial hardship can be demonstrated by the permit applicant.

The Coastal Marshlands Protection Rule 391-2-3 was amended in February 2007 by inserting new Rule 391-2-3-.02, "Regulation of Upland Component of a Project" to establish stormwater management measures, impervious surface coverage standards, and buffer design and maintenance requirements for the upland component of a project which is subject to permitting under the Marsh Act. This action further refines the new Rule 391-2-3-.02 to provide the Coastal Marshlands Protection Committee with authority to grant an exception to the 50-foot marshlands buffer when issuing a permit, provided certain criteria are met.

The Coastal Marshlands Protection Rule 391-2-3-.02 was amended to establish an exception procedure for application of the 50-foot marshlands buffer to the upland component of a project which is subject to permitting under the CMPA. The exception rules were approved by the DNR Board on July 25, 2007 (Appendix 2).

The Rule authorizes the Coastal Marshlands Protection Committee to grant a permit containing an exception to the 50-foot marshlands buffer if each of the following conditions are met: application of the marshlands buffer creates a substantial hardship; the water quality protection function and treatment capabilities of the marshlands buffer can be achieved by alternative means; and the encroachment into the buffer is minimized while still allowing for reasonable use of the affected parcel. The rule revision further defines substantial hardship and enumerates the factors to be considered by the Coastal Marshlands Protection Committee in evaluating whether a substantial hardship exists.

The new rule applies primarily to commercial, community and public projects such as marinas, community docks, fishing piers, boat ramps, and bridges. The rule does not apply to private residential docks not requiring a CMPA permit, or marshfront property that does not have a project requiring a CMPA permit.

The new regulations also require an applicant checklist to assist permit applicants, which can be obtained from the Coastal Marshlands Protection Committee administrative headquarters at the CRD headquarters in Brunswick.

6.3.3 Georgia Erosion and Sedimentation Act

The Georgia Erosion and Sedimentation Act (E&S Act) requires that each county or municipality adopt a comprehensive ordinance establishing procedures governing land-disturbing activities based on the minimum requirements established by the Act. The E&S Act is administered by the GADNR/EPD and local governments. Permits are required for specified "land-disturbing activities," including the construction or modification of manufacturing facilities, construction activities, certain activities associated with transportation facilities, activities on marsh hammocks, etc. With certain constraints, permitting authority can be delegated to local governments.

One provision of the E&S Act requires that land-disturbing activities shall not be conducted within 25 feet of the banks of any State waters unless a variance is granted (O.C.G.A. 12-7-6-(15)). Construction of single family residences under contract with the owner are exempt from the permit requirement but are still required to meet the standards of the Act (O.C.G.A. 12-7-17-(4)). Large development projects, both residential and commercial, must obtain a permit and meet the requirements of the Act. According to the Georgia Coastal Management Act, any permits or variances issued under the E&S Act must be consistent with the policies of the Georgia Coastal Management Program. Permits for activities occurring within the jurisdiction of the CMPA and the Shore Protection Act can include requirements that certain minimum water quality standards be met as a condition of the permit.

There are specific exemptions to the requirements of the E&S Act (O.C.G.A. 12-7-17 - Exemptions). The exemptions include: surface mining, granite quarrying, minor land-disturbing activities such as home gardening, construction of single-family homes built or contracted by the homeowner for his own occupancy, agricultural practices, forestry land management practices, dairy operations, livestock and poultry management practices,

construction of farm buildings, and any projects carried out under the supervision of the Natural Resource Conservation Service (NRCS) of the U.S. Department of Agriculture. Exemptions from the requirements of the Act also apply to any project involving 1.1 acres or less, provided that the exemption does not apply to any land-disturbing activities within 200 feet of the bank of any State waters.

Construction or maintenance projects undertaken or financed by the GADOT, the Georgia Highway Authority, or the Georgia Tollway Authority, or any road or maintenance project undertaken by any county or municipality, are also exempt from the permit requirements of the Act, provided that such projects conform to the specifications used by the GADOT for control of soil erosion. Exemptions are also provided to land-disturbing activities by any airport authority, and by any electric membership corporation or municipal electrical system, provided that such activities conform as far as practicable with the minimum standards set forth at Code Section 12-7-6 of the E&S Act.

The GADOT has developed a "Standard Specifications -- Construction of Roads and Bridges," which describes contractor requirements, including controls for sedimentation and erosion. The specifications describe the requirements for both temporary control measures for use during the construction phase, and permanent erosion and sedimentation control measures that need to be incorporated into the design of the project. Failure to comply with the provisions of the specification will result in cessation of all construction activities by the contractor, and may result in the withholding of monies due to the contractor according to a schedule of non-performance of erosion control, enforced by the GADOT. Forestry and agricultural land-disturbing activities are subject to the Best Management Practices of the Georgia Forest Commission and the Georgia Soil and Water Conservation Commission, respectively.

6.3.4 The Georgia Planning Act of 1989

The Georgia Planning Act of 1989 encourages each local government in the state to develop a comprehensive plan to guide its activities over a 20-year planning horizon. In order to provide local governments with guidelines to use in preparing their comprehensive plans, the Act called for the Georgia Departments of Natural Resources (GADNR) and Community Affairs (DCA) to develop a set of minimum requirements to be met in each local plan. These minimum requirements are known as the "Minimum Planning Standards".

One of the goals of the Georgia Planning Act of 1989 is the protection of our state's natural resources, environment, and vital areas. Included in the Act are minimum standards and procedures generally known as the "Environmental Planning Criteria" or "Part 5 Criteria" (from Part 5 of House Bill 215, which became the Planning Act). To maintain eligibility for certain state grants, loans, and permits, local governments must implement regulations consistent with these criteria. The *Rules for Environmental Planning Criteria* (Chapter 391-3-16) were developed by the GADNR as mandated in Part V of the Georgia Planning Act and in the Mountains and River Corridors Protection Act and are part of the local government planning standards. The rules direct local

governments to establish local protection efforts to conserve critical environmental resources. They are divided into the following five sections:

- Water supply watershed protection, including buffers and development intensity;
- Groundwater recharge areas protection, including land use activities;
- Wetlands protection, including land use and alteration of wetlands
- River corridor protection; and
- Mountain protection, including regulation of wells and septic tanks.

The criteria are not mandatory regulations, but they must be taken into account in the development of each local government's comprehensive plan. In order for a comprehensive plan to meet the Minimum Standards, it must identify whether any of these environmentally sensitive areas exist within the local government's jurisdiction and, if so, access whether all or part of these minimum criteria should be implemented locally. In addition, these environmental planning criteria are "minimums" – local governments will likely want to not only incorporate these minimums into their comprehensive plans, but go beyond them in the interest of protecting these important natural resources.

The GADNR and the DCA are responsible for ensuring that local governments comply with the Environmental Planning Criteria and adopt and enforce the necessary local ordinances. The DCA document entitled "*Implementing Georgia's Environmental Planning Criteria*" provides an overview of the five sections of the criteria. Additional information and the complete Rules for Environmental Planning Criteria are available on the DCA website: www.dca.state.ga.us/.

6.3.5 Mountain and River Corridor Protection Act

The statute that is informally known as the Mountain and River Corridor Protection Act (MRCPA) (O.C.G.A. 12-2-8) authorizes the GADNR to develop minimum standards for the environmental protection of river corridors (and mountains, watersheds, and wetlands) that can be adopted by local governments (also see discussion above in Section 6.3.4). The Act is administered by the EPD. All rivers in Georgia with an average annual flow of 400 cubic feet per second are covered by the Act, except those within the estuarine area under jurisdiction of Georgia's Marsh Act. Some of the major provisions of the Act include: requirements for a 100-foot vegetative buffer on both sides of rivers; consistency with the Georgia E&S Act; stringent requirements on septic tanks; and local governments must identify river corridors in land-use plans developed under their respective comprehensive planning acts.

Regional Development Centers (RDC) are instrumental in helping local governments enact the provisions of this Act. The Plan describes the ten local governments and the associated rivers that are affected by the River Corridor Protection Act, and puts forward a regional plan for the protection of river corridors. Regional plans are preferable to having local governments prepare individual plans. The plan provides for construction of road crossings, acceptable uses of river corridors, maintenance of a vegetative buffer

along the river for a minimum of 100 feet from the river's edge (residential structures are allowed within the buffer zone), timber production standards, wildlife and fisheries management, recreation, and other uses. The local governments within the Coastal RDC jurisdiction affected by the River Corridor Protection Act, and their respective rivers are listed below. Ten coastal counties and two coastal cities (Richmond Hill and Woodbine) are affected.

Adoption of language addressing the River Corridor Protection Act is required in local comprehensive plans. The following coastal counties and cities have adopted a Regional River Corridor Protection Plan.

Brantley County.....	Satilla River
Bryan County	Canoochee River
	Ogeechee River
City of Richmond Hill	Ogeechee River
Camden County	Satilla River
	St. Mary's River
City of Woodbine	Satilla River
Charlton County.....	St. Mary's River
	Satilla River
Chatham County	Savannah River
Effingham County	Ogeechee River
	Savannah River
Glynn County	Altamaha River
Liberty County	Canoochee River
Long County	Altamaha River
McIntosh County	Altamaha River

Jurisdiction of the River Corridor Protection Act extends along the above named rivers from the limit of CMPA jurisdiction upstream through the coastal counties.

6.3.6 Protection of Tidewaters Act

Based on the Public Trust Doctrine, the Protection of Tidewaters Act and previous opinions of Georgia's Department of Law establishes the State of Georgia as the owner of the beds of all tidewaters within the State, except where title by a private party can be traced to a valid British Crown or State land grant. The Act provides the GADNR the authority to remove those "structures" that are capable of habitation, or incapable of or not used for transportation (and thus finds habitable structures over tidelands contrary to the public interest). Permits for such structures may not extend past June 30, 1997. The Act provides procedures for removal, sale, or disposition of such structures. (This is similar to the Right of Passage Act, except that it is specific to tidewaters rather than all waters of Georgia.)

6.3.7 Shore Protection Act

“The sand-sharing system is an integral part of Georgia’s barrier islands, providing great protection to the states marshlands, estuaries and uplands from Atlantic storm activity.” (O.C.G.A. 12-5-230, et seq.)

The Shore Protection Act is the primary legal authority for protection and management of Georgia's shoreline features including sand dunes, beaches, sandbars, and shoals, collectively known as the sand-sharing system. Its jurisdiction includes the submerged shoreline lands out to the three mile limit of State ownership, the sand beaches to ordinary high water mark, and the "dynamic dune field", which is defined as the dynamic area of the beach and sand dunes. The ocean boundary of the dynamic dune field extends to the ordinary high water mark, and the landward boundary of the dynamic dune field is the first occurrence of either a live native tree 20 feet in height or greater, or a structure existing on July 1, 1979.

The Shore Protection Act limits activities in shore areas and requires a permit for certain activities and structures on the beach. Construction activity in sand dunes is limited to temporary structures such as crosswalks, and then only by permit from the Shore Protection Committee. Structures such as boat basins, docks, marinas, and boat ramps are not allowed in the dunes. The Shore Protection Act prohibits operation of any motorized vehicle on or over the dynamic dune fields and beaches, except as authorized for emergency vehicles, and governmental vehicles for beach maintenance or research. The Shore Protection Act also prohibits storage or parking of sailboats, catamarans, or other marine craft in the dynamic dune field.

Direct permitting authority regarding any proposed facilities or activities located within the jurisdictional area of the Shore Protection Act lies with the Shore Protection Committee. These permits are administered by the CRD.

6.4 Key Georgia State Laws Which May Be Used to Condition 401 Certification on Stream Buffers, Impervious Surfaces, and Stormwater

6.4.1 Stream Buffers

Georgia has four statutes in place with associated rules that provide for buffers (or setbacks along stream corridors) in the coastal Georgia region. The four statutes are as follows: the CMPA; E&S Act; The Georgia Planning Act of 1989; and Mountain and River Corridor Act.

6.4.1.1 Erosion & Sedimentation Act - The E&S Act and associated regulations require stream buffers throughout the State including the coastal region of Georgia. The E&S Act places a 50 or 25 foot buffer, depending on whether or not the stream is a cold trout water, along the banks of all state waters. The E&S buffer is measured “horizontally from the point where vegetation has been wrested by normal stream flow or wave action.” This buffer requirement is subject to specific exceptions and allows EPD the opportunity to grant variances authorizing certain land disturbing activities in the buffer.

EPD administers the E&S Act and is empowered to grant local governments “Local Issuing Authority” (LIA) status. This designation process is intended to promote local control of land use issues. Upon adoption of EPD’s model ordinance designed to manage erosion and sedimentation, a local government may be granted LIA certification. Upon certification by EPD, the LIA is responsible for enforcing the requirements of the E&S Act by local ordinance. The LIA is also responsible for issuing Land Disturbing Activity (LDA) permits, accompanied by site erosion and sedimentation control plans. The E&S Act theoretically allows LIAs to adopt and enforce buffer widths greater than the State minimums, but only Director of EPD can grant variances within the minimum mandated 25-foot buffer, and only if the buffer function is not compromised.

If a stream buffer variance for a proposed project is required, EPD must have received a complete buffer application prior to 401 water quality certification. EPD will not issue a water quality 401 certification for projects encroaching into stream buffers unless a variance is issued.

6.4.1.2 .Mountain and River Corridor Protection Act (MRCPA)

The Mountain and River Corridor Protection Act (MRCPA) and its rule “Criteria for River Corridor Protection” (GA. COMP. R. & Regs. R.391-3-16-0.04 (2006) establish minimum land use standards to be utilized by local governments in developing comprehensive plans. This law creates a 100-foot buffer along the banks of rivers with a flow greater than 400 cfs (the larger rivers in Georgia) and requires local governments to develop River Corridor Protection Plans which are to include minimum protection criteria “within natural vegetative buffers”. The Department of Community Affairs (DCA) administers these rules which are implemented by local governments to meet their Comprehensive Planning Criteria. In the event of non-compliance with the Georgia Planning Act, local governments may lose eligibility for a variety of State and Federal funds.

The MRCPA’s jurisdiction, explicitly does not reach land regulated by the CMPA (O.C.G.A. 12-5-280-297). These jurisdictional boundaries are administratively drawn at the western extent of I-95 or abut approximately at the Highway 17 bridges. The CMPA, administered by GADNR/CRD, requires a permit from the Coastal Marshlands Protection Committee, for actions that “remove, fill, dredge, drain, or otherwise alter any marshlands or construct or locate any structure on or over marshlands in this state within the estuarine area...”(OCGA 12-5-280 286(a)).

The location of Highway 17 along the six immediate coastal counties provides the approximate jurisdictional boundary between the MRCPA and the CMPA.

6.4.1.3 The Georgia Planning Act of 1989

Another closely related rule, the “Criteria for Water Supply Watersheds” (GA COMP.R.& REGS.r.391-3-16-.01 (2006) promulgated pursuant to the Georgia Planning

Act of 1989, establishes various sized buffers (50-100 feet) along waterways upstream of water supply intakes or water supply reservoirs. EPD is currently undertaking a rulemaking to create a variance process for activities in these buffers. The only municipal surface water withdrawal in the coastal region is on Abercorn Creek near Savannah. Because of both the drainage basin's size and the lack of a reservoir associated with this intake, the Criteria for Water Supply Watersheds do not govern activities in the watershed upstream from this intake.

6.4.1.4 New Regulations for Upland Component of Projects Permitted Under CMPA

The new rule establishes a 50-foot marshlands buffer applicable to the upland component of the project, defines how to measure that buffer, and requires that the buffer remain in an undisturbed, naturally vegetated condition. Exceptions are provided for temporary construction and maintenance, permanent structures essential for the function or permanent access to the marsh component of the project, landscaping to enhance stormwater management, and pedestrian access for passive recreation. Existing impervious surfaces may be maintained in their current condition provided replacement or modifications do not encroach further into the buffer.

Following temporary or permanent land disturbance, marshlands buffer vegetation must be restored and maintained so as to protect water quality.

6.4.2 Impervious Surfaces

Three laws, the E&S Act and the Criteria for Water Supply Watersheds promulgated pursuant to the Georgia Planning Act of 1989, and the CMPA new upland rules manage impervious surfaces within mandated setbacks adjacent to streams.

6.4.2.1 Erosion & Sedimentation Act – The E&S Act mandates that only the EPD Director may grant variances to allow land-disturbing activities in the buffer. Through this buffer variance process, EPD can condition the granting of a variance on, among other mitigation measures, the implementation of impervious surface limits within the buffer.

6.4.2.2 Criteria for Water Supply Watersheds – The Criteria for Water Supply Watersheds also establishes restrictions to impervious surfaces in setback areas (75-150 feet) along streams upstream of water supply intakes or reservoirs. This rule's, however, is limited in jurisdiction due to not reaching many surface waters within the coastal region.

6.4.2.3 New Regulations for Upland Component of Projects Permitted Under CMPA

Pervious surfaces must be maximized and total impervious area minimized in the project area when practicable, with a goal of no more than 15% effective impervious cover, taking into consideration existing structures and available land within the upland component of the project area.

6.4.3 Stormwater

The GADNR/EPD is authorized to implement the Federal National Pollutant Discharge Elimination System (NPDES) stormwater program. This program requires construction sites, local municipalities, and industries to acquire an NPDES permit from EPD to discharge stormwater. For municipal separate storm sewer systems (MS4), these permits require the development of a Storm Water Management Plan that includes the use of Best Management Practices (BMPs) to reduce the levels of pollutants in storm sewer system to the “maximum extent practicable.” These permits do not contain “end of pipe” effluent limitations.

The State’s NPDES regulations were implemented in two phases: Phase I in 1990 and Phase II in 1999. The Phase I Stormwater Regulations cover large and medium municipalities with populations over 100,000. These regulations currently cover 58 cities and counties. In the coastal region of Georgia, the only Phase I MS4 community is Chatham County and all of its incorporated municipalities, excluding Vernonburg.

The Phase II Stormwater Regulations, passed in 1999, regulate small municipalities with populations less than 100,000 and located in an “Urbanized Area” or otherwise designated by the State. These regulations currently cover 56 cities and 28 counties and require all Phase II communities to adopt a stormwater management ordinance by December 2006. In the coastal region of Georgia, the only Phase II MS4 communities are the urbanized areas of Glynn, Liberty, and Long counties, as well as the entire cities of Brunswick, Flemington, Hinesville, Vernonburg, and Walthourville.

Industrial sites are also subject to NPDES stormwater permitting. Regulated facilities are required to obtain coverage under the existing Statewide General Permit by submitting a notice of intent (NOI). Permittees are required to develop, implement, and maintain (on site) a Storm Water Pollution Prevention Plan (SWP3). This plan is a site-specific document identifying potential stormwater pollutants present at the site and establishing BMPs to control these pollutants. Some industrial facilities may claim exemption from storm water permitting under the “Industrial No Exposure Exclusion”, by properly sheltering industrial materials and activities from exposure to stormwater.

EPD exercises oversight of these regulated activities through an annual reporting process. These reports, prepared and submitted by the permittee, outline BMPs installed, improvements made, and potential areas where further improvements to stormwater management are necessary.

6.4.3.1 .New Regulations for Upland Component of Projects Permitted under CMPA

The marshlands buffer must be designed, installed and maintained to achieve stormwater treatment consistent with the standards of the most recent edition of the Georgia Stormwater Management Manual, and once amended, any future standards specific to the coast.

Untreated stormwater may not be discharged from the upland component of a project unless a waiver is received from the Coastal Marshlands Protection Committee due to site or project characteristics, lack of a feasible alternative, and minimal impact. Discharged stormwater must meet the standards of the most recent edition of the Georgia Stormwater Management Manual, and once amended, any future standards specific to the coast. Greenspace must be retained where practicable and appropriate. Non-structural stormwater management and better site design practices such as those in the Georgia Stormwater Management Manual must be utilized to the maximum extent practicable.

6.4.3.2 Development of a Coastal Stormwater Supplement

The Georgia Stormwater Management Manual (GSMM), a.k.a. “the Blue Book”, is intended to be applicable statewide. However, based on extensive research and discussion, it has been determined that some specifics related to coastal water quality concerns and BMP effectiveness in coastal areas need to be adjusted and/or modified. The Chatham County-Savannah Metropolitan Planning Commission (MPC) and GADNR/EPD are collaborating with the Center for Watershed Protection to address these coastal stormwater needs. The development of a new Georgia Stormwater Management Manual: Coastal Supplement” will add to and update (rather than duplicate) the wealth of information already provided in the GSMM to create a more specific guidance document regarding post-construction stormwater management for the coastal zone.

Based on results of research, the supplement will recommend a stormwater management approach for the coastal zone that relies less upon structural BMPs to mitigate the impacts associated with new development and redevelopment projects. The approach used in the coastal zone will be consistent with that presented in the GSMM but will integrate the use of small-scale, distributed practices with better site design techniques and low impact development tools with structural stormwater BMPs to address the impacts of urban stormwater runoff. The recommended stormwater management approach in the draft Coastal Supplement includes:

- Developing the land in a way that minimizes its impact on the watershed and reduces both the amount of runoff and pollutants generated
- Using low impact development practices to treat the quality and quantity of stormwater runoff at its source
- Using structural stormwater BMPs to control stormwater runoff volumes to prevent downstream flooding and streambank channel erosion
- Using structural stormwater BMPs to treat stormwater runoff before it is discharged to a receiving waterbody
- Maintaining groundwater recharge through the use of better site design techniques, low impact development practices and stormwater BMPs
- Implementing pollution prevention practices to prevent stormwater from becoming polluted.

The supplement will stress the need for comprehensive stormwater management in the coastal zone and will provide guidance to communities to help them develop effective local stormwater management programs. The technical appendices will include a model stormwater management ordinance for the communities of the coastal zone and monitoring protocol that can be used to help define the pollutant removal of coastal stormwater BMPs. The document is anticipated to be completed late fall 2008.

6.5 Processing of Coastal State Laws

6.5.1 When a Revocable License is Needed

A state Revocable License is permission from the State to use publicly owned lands lying below the ordinary high water mark. This permission is required for any activities, whether permanent or temporary, that would impact tidally influenced waters, salt marshes, intertidal areas, mud flats, or tidal waterbottoms in Effingham, Long, Wayne, Brantley, Chatham, Glynn, Camden, McIntosh, Bryan, Liberty, and Charlton Counties. This includes bank stabilization projects (bulkheads and riprap), projects that require a CMPA permit, projects that are specifically exempt from the CMPA, and most ACOE Nationwide Permits.

6.5.2 When a Coastal Marshlands Protection Act Permit is Needed

A CMPA permit is required for any project which involves removing, filling, dredging, draining or otherwise altering any coastal marshlands. Applicants proposing to impact areas below the ordinary high water mark need to apply for a permit. Once a permitted project is constructed, it can be maintained without a permit as long as maintenance does not alter natural vegetation or topography of the site. Private single-family recreational docks are exempted from this Act and regulated through the PGP83 and Revocable license procedure.

In general, projects will be permitted if they do not harm or alter the natural flow of navigational waters; do not increase erosion, shoaling channels or create stagnant pools; and do not interfere with conservation of marine life, wildlife, water supply, or other resources. Public notice procedures, local zoning regulations, and notification of adjacent property owners may also apply.

6.5.3 When a Shore Protection Act Permit is Needed

Coastal sand dunes, beaches, sandbars and shoals comprise a vital natural resources system and provide critical habitat for living resources. This sand-sharing system acts as a buffer to protect real and personal property and natural resources from the damaging effects of floods, winds, tides and erosion. The State of Georgia only allows activities and alterations, which are in the public interest, and do not substantially impair the values of functions of the sand-sharing system. Shore protection lines are generally valid for a one-year period and must be updated if any changes are proposed.

Except in special conditions, the Shore Protection Act permits only those projects which do not alter the natural topography or vegetation within beach and dune areas. Once a permitted project has been constructed, it may be maintained without a permit if maintenance does not further alter the site or increase its size. If any structure or engineering activity is more than 80% destroyed by wind, water, or erosion, a permit is required for reconstruction. Examples of projects which require Shore Protection Act permits are beach renourishment projects, groins, jetties, rock revetments to protect property, sand dune crossover structures, and any buildings within the jurisdictional areas.

Generally, permits for structures will be issued when the proposed project is landward of sand dunes, will retain at least a third of the area's natural topography and vegetation, is designed according to hurricane resistant standards, construction activities are kept to a minimum, and will maintain the normal functions of the sand sharing systems, minimizing storm wave damage and erosion.

Chapter 7. State Enforcement Capabilities Under 401

7.1 Clean Water Act

In the case of any activity requiring a federal license or permit for any discharge into the waters of the United States, the Director of EPD has the authority under § 401 of the Clean Water Act to impose permit conditions to regulate non-point source pollution and require management measures implementation. Under this authority, Georgia may “condition [§ 401] certification upon any limitations necessary to ensure compliance with state water quality standards or any other ‘appropriate requirement of State law.’” See PUD No. 1 of Jefferson County, et al. v. Washington Department of Ecology, et al., 511 U.S. 700 (1994). Furthermore, Georgia’s authority to regulate non-point source pollution under CWA § 401 is enforceable pursuant to 33 U.S.C.A. § 1365(a)(1) and (f). See also O.C.G.A. § 12-5-42(c), where pollution results from a violation of conditions.

Pursuant to 33 USC § 1341 (a), (§ 401 of the Clean Water Act), the Federal Government has granted the States, including Georgia, the authority to impose conditions upon “Federal licenses or permits issued for any activitie[s]... which may result in any discharge into the navigable waters” of the United States. 33 USC § 1341 (a). These conditions are imposed through State certification “that any such discharge will comply with the applicable provisions” of the Act. 33 USC § 1341 (a). In providing a §401 certification, Georgia’s role is to also assure project compliance with “any other appropriate requirement of State law,” by setting “forth any effluent limitations and other limitations, and monitoring requirements.” 33 USC § 1341 (d). This section of the Clean Water Act is clear in conferring broad authority upon Georgia to regulate activities, including those resulting in non-point source pollution, “which may result in any discharge into the navigable waters” of the United States.

This conclusion is informed by the Federal Supreme Court’s finding that States may “condition [§ 401] certification upon any limitations necessary to ensure compliance with state water quality standards or any other ‘appropriate requirement of State law.’” See PUD No. 1 of Jefferson County, et al. v. Washington Department of Ecology, et al., 511 U.S. 700 (1994). The Supreme Court has also found that under §401, “Congress provided the States with power to enforce ‘any other appropriate requirement of State law,’ by imposing conditions on federal licenses for activities that may result in a discharge.” See S. D. Warren Company V. Maine Board Of Environmental Protection Et Al., 126 S. Ct. 1843 (2006), (quoting 33 U. S. C. §1341(d)).

EPA’s regulations implementing § 401 offer further clarification. These regulations provide that in certifying a project under § 401, States are to supply “reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.” 40 CFR § 121.2(a)(3) (1993). Finally, EPA’s

guidance on §401 implementation addresses the range of available regulatory tools in finding that “Congress meant for the States to condition certifications on compliance with any State and local law requirements related to water quality preservation. The courts that have touched on the issue have also indicated that conditions that relate in any way to water quality maintenance are appropriate.” EPA Office of Water (A-104F), Wetlands and 401 Certification Opportunities and Guidelines For States and Eligible Indian Tribes, (April 1989). Also See PUD No. 1 of Jefferson County, et al. v. Washington Department of Ecology, et al., 511 U.S. 700 (1994) (citing EPA, Wetlands (Apr. 1989)).

Since §401 of the Clean Water Act is clear in granting Georgia the authority to utilize a range of regulatory tools to prevent state water quality standard violations, and because Georgia’s authority to regulate non-point source pollution under CWA § 401 is enforceable pursuant to 33 U.S.C.A. § 1365(a)(1) and (f) and O.C.G.A. § 12-5-42(c), §401 serves as an important tool in managing non-point source pollution and requiring management measures implementation.

7.2 Georgia Water Quality Control Act

On January 24, 1996, the Assistant Attorney General for the State of Georgia responded to a December 20, 1995 memorandum from the Director of the GADNR/EPD regarding 401 enforcement capabilities. More specifically, the Director asked whether a violation of a Section 401 Water Quality Certification requirement, after the ACOE issued a Section 404 permit incorporating the Section 401 Water Quality Certification requirements, can be enforced by EPD. If so, upon what authority. The Attorney General’s response was as follows:

I have examined the Georgia Water Quality Control Act, O.C.G.A. § 12-5-20, et seq. and the rules and regulations promulgated thereunder exhaustively in search of some authority that would enable EPD to enforce Section 401 Water Quality Certification requirements. There is no such provision of Georgia law. Accordingly, I am forced to conclude that EPD cannot enforce Water Quality Certification requirements under Section 401 of the Clean Water Act.

Your staff has indicated to me that these Water Quality Certification requirements are routinely incorporated in permits issued by the U.S. Army Corps of Engineers under the authority of Section 404 of the Clean Water Act. Since compliance with the Water Quality Certifications are made a condition of Corps permits, it appears to me to be the obligation of the Army Corps of Engineers to enforce the condition of its permits. EPD has no authority whatsoever to enforce the conditions of a permit issued by the U.S. Army Corps of Engineers.

The Attorney General’s office limited their review to the State’s Water Quality Control Act. Currently, therefore, the State of Georgia’s 401 WQC Program has no statutory authority.

Regretfully, the AG's assumption that the U.S. Army Corps of Engineers would have the obligation to enforce the 401 WQC conditions within the 404 permits does not apply to the Corps District which oversees 404 projects within Georgia. The Savannah District of the U.S. Corps of Engineers has clarified that they will not enforce 401 conditions (Richard Morgan, COE, Keith Parsons, GAEPD, Bob Lord, USEPA Atlanta, pers. comms.). However, the Savannah Corps has stated that IF the state revoked a water quality certification, the Savannah District would issue a stop order until the water quality conditions were met.

7.3 2007 State Deputy Attorney General Letter to GADNR

On June 5, 2007, the Deputy Attorney General of the State provided a letter to the GADNR as to its authority to develop and implement a nonpoint source regulatory program within the contemplation of Section 6217 of the CZMA. As part of EPA and NOAA's 2002 conditional approval of the Coastal NPS Program, the two agencies requested the State provide the "back up" regulatory jurisdiction over CZMA activities.

Specific portions of the June 5, 2007 letter are provided below to support the State Attorney General Office's determination that *"Georgia has authority that can be used to prevent nonpoint source pollution and require management measure implementation with respect to agricultural, silvicultural, and urban discharges and hydromodification in the coastal area, as necessary, in accordance with the requirements of Section 6217 of the Coastal Zone Management Act. 16. U.S.C. § 1455b."* (p. 6).

"...the Environmental Protection Division of the Department of Natural Resources (EPD) operates under policies and rules prescribed by the Board of Natural Resources and is charged with the duty to 'require the use of reasonable methods...to prevent and control the pollution of the waters of the state.' O.C.G.A. § 12-5-21(b). Pursuant to this authority, among other things, the EPD is expressly authorized to: conduct or cooperate in research for the purpose of developing methods of preventing and controlling pollution and 'issue orders directing any particular person or persons to secure within the time specified therein such operating results as are reasonable and practicable of attainment toward the control, abatement, and prevention of pollution of the waters of the state and the preservation of the necessary quality for the reasonable use thereof.' O.C.G.A. § 12-5-23(b)(1) and (c)(12)." (p. 2)

"...Since the Water Quality Control Act defines 'pollution' as 'the manmade or man induced alteration of the chemical, physical, biological and radiological integrity of water,' O.C.G.A. §12-5-22(10), Georgia's authority to control and prevent pollution necessarily covers a wide range, though it is limited by reasonableness. O.C.G.A. §12-5-21(b)(1) and (c)(12). However, this authority must be applied in a manner consistent with the Clean Water Act (CWA). See Op. Atty. Gen 97-25 (concluding that State NPDES program must be consistent with Clean Water Act requirements). Thus, any activity subject to regulation under the CWA can also be regulated under the Water Quality Control Act." (p. 3)

“...Indeed, the EPD is authorized to act whenever any person is discharging pollutants to such a degree as to prevent any waters of the state from meeting water quality standards and may issue emergency orders in appropriate cases. O.C.G.A. §12-5-42(a) and -45. In the case of operations that come with the terms of 33 U.S.C. 1344 (commonly known as ‘Section 404’), 33 U.S.C. 1341 (‘CWA 401’) authorizes the Director of EPD to impose conditions upon permits issued pursuant to Section 404 to prevent pollution. See PUD No. 1 of Jefferson County, et al. v. Washington Department of Ecology, et al., 511 U.S. 700 (19945). Violations of such conditions are enforceable pursuant to 33 U.S.C.A. §1365(a)(1) and (f). See also O.C.G.A. §12-5-42(c), (authorizing Director to take action to protect water quality when threatened by pollution.)” (p. 5-6)

In final, the letter states the following regarding overall nonpoint source pollution and management measure implementation:

“In light of the foregoing authorities, I conclude that Georgia has authority that can be used to prevent non-point source pollution and require management measures implementation with respect to agricultural, silvicultural, and urban discharges and hydromodification in the coastal area, as necessary, in accordance with the requirements of Section 6217 of the Coastal Zone Management Act. 16 U.S.C. §1455b. While Georgia’s program relies on voluntary compliance significantly, its implementation of management measures can be accomplished through a network of applicable authorities as discussed herein involving both State and local agencies. The Georgia Water Quality Control Act is the primary source of backup authority for such implementation.”

7.4 Coastal Marshlands Protection Act

The following citations support the enforceability of Section 401 regarding the Coastal Marshlands Protection Act (shaded portions indicate points of special interest):

§ 12-5-286. Permit required; application; notice; public hearing; issuance; denial; dynamic dune fields

(a) No person shall remove, fill, dredge, drain, or otherwise alter any marshlands or construct or locate any structure on or over marshlands in this state within the estuarine area thereof without first obtaining a permit from the committee or, in the case of minor alteration of marshlands, the commissioner. A permit may authorize the construction or maintenance of the project proposed in an application. After construction pursuant to a permit, a project may be maintained without a permit so long as it does not further alter the natural topography or vegetation at the project site.

(b) Each application for such permit shall be properly executed and filed with the department on forms prescribed by the department and shall include:

(1) The name and address of the applicant;

(2) A plan or drawing showing the applicant's proposal and the manner or method by which such proposal shall be accomplished. Such plan shall identify the coastal marshlands affected;

(3) A plat of the area in which the proposed work will take place;

(4) A copy of the deed or other instrument under which the applicant claims title to the property or, if the applicant is not the owner, then a copy of the deed or other instrument under which the owner claims title together with written permission from the owner to carry out the project on his land. In lieu of a deed or other instrument referred to in this paragraph, the committee may accept some other reasonable evidence of ownership of the property in question or other lawful authority to make use of the property. The committee will not adjudicate title disputes concerning the property which is the subject of the application; provided, however, that the committee may decline to process an application when submitted documents show conflicting deeds;

(5) A list of all adjoining landowners together with such owners' addresses, provided that if the names or addresses of adjoining landowners cannot be determined, the applicant shall file in lieu thereof a sworn affidavit that a diligent search, including, without limitation, a search of the records of the county tax assessor's office, has been made but that the applicant was not able to ascertain the names or addresses, as the case may be, of adjoining landowners;

(6) A letter from the local governing authority of the political subdivision in which the property is located, stating that the applicant's proposal is not violative of any zoning law;

(7) A nonrefundable application fee to be set by the board in an amount necessary to defray the administrative cost of issuing such permit. Renewal fees shall be equal to application fees, which shall not exceed \$1,000.00 for any one proposal and shall be paid to the department;

(8) A description from the applicant of alternative sites and why they are not feasible and a discussion of why the permit should be granted;

(9) A statement from the applicant that he has made inquiry to the appropriate authorities that the proposed project is not over a landfill or hazardous waste site and that the site is otherwise suitable for the proposed project;

(10) A copy of the water quality certification issued by the department if required for the proposed project;

(11) Certification by the applicant of adherence to soil and erosion control responsibilities if required for the proposed project; and

(12) Such additional information as is required by the committee to properly evaluate the application.

(c) A copy of each application for a permit shall be delivered to each member of the committee at least seven days prior to any meeting of the committee.

(d) The department, after receipt of an application, shall notify in writing all adjoining landowners that the application has been received. Such notice shall indicate the use the

applicant proposes to make of the property. Should the applicant indicate that any adjoining landowner is unknown or that the address of such landowner is unknown, then the department shall, after receipt of a completed application, cause a notice of the proposed activity and a brief description of the affected land to be published in the legal organ of or a newspaper of general circulation in the county or counties in which such land lies. Cost of such publication shall be paid by the applicant. Should the property to be affected by the applicant be bordered on any side or on more than one side by other property of the applicant, the applicant shall supply the names and addresses of the nearest landowners whose land borders on his land. If the names or addresses, or both, of the nearest landowners cannot be ascertained, the applicant shall supply a sworn statement of diligent search as provided in this Code section. The landowners named by the applicant shall be notified either directly or by advertisement as provided in this Code section. The department may also make inquiry to adjoining landowners to ascertain whether or not there is objection to issuance of a permit.

(e) The committee shall provide notice of applications by either public notice distributed jointly with the United States Army Corps of Engineers or public notice distributed by the committee. In no instance shall a public notice be issued for less than seven days prior to the meeting at which the committee reviews the subject of the public notice. Public notices shall be distributed to all persons who have requested to be placed on the mailing list. Such request shall be made in writing and shall be renewed in December of each year. Failure to renew the request shall result in the removal of such name from the mailing list.

(f) Whenever there appears to be sufficient public interest, the committee may call a public hearing.

(g) In passing upon the application for permit, the committee shall consider the public interest, which, for purposes of this part, shall be deemed to be the following considerations:

(1) Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal;

(2) Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created; and

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

(h) It is the responsibility of the applicant to demonstrate to the committee that the proposed alteration is not contrary to the public interest and that no feasible alternative sites exist. If the committee finds that the application is not contrary to the public interest and no feasible alternative sites exist, as specified in this subsection, it shall issue to the applicant a permit. Such permit may be conditioned upon the applicant's amending the proposal to take whatever measures are necessary to protect the public interest.

(i) The committee shall act upon an application for a permit within 90 days after the application is complete; provided, however, that this provision may be waived upon the

written request of the applicant. An application must be complete sufficiently in advance of the committee meeting at which the project will be considered to allow for public notice and evaluation by the department. An application is complete when it contains substantially all of the written information, documents, forms, fees, and materials required by this part.

(j) In the event a majority of the members of the committee determine that a permit should be denied, the application for permit shall be denied. Any applicant who is aggrieved or adversely affected thereby shall have the right to appeal as provided in Code Section 12-5-283.

(k) Should a majority of the members of the committee agree that a permit should be conditional, the permit shall be issued on such conditions as a majority of the committee directs. Any applicant who is aggrieved or adversely affected thereby shall have the right to appeal as provided in Code Section 12-5-283.

(l) Every permit shall require that the proposed project be completed within five years after the date of the issuance of the permit and such permit shall expire five years after the date of issuance. Such time may be extended an additional five years upon showing that all due efforts and diligence toward the completion of the work have been made. Any permit may be revoked by the committee for noncompliance with or for violation of its terms after written notice of intention to do so has been furnished to the holder thereof.

(m) A permit to alter marshlands that has been granted by the committee becomes final immediately upon issuance, but no construction or alteration may commence until the expiration of 30 days following the date of the committee meeting at which the application is approved; provided, however, that if a timely appeal is filed, no construction or alteration may commence until all administrative and judicial proceedings are terminated.

(n) Issuance of a permit under this part and construction of the permitted project shall not remove the designated property from the jurisdiction of this part. All changes in permitted uses which increase impacts to any land subject to the provisions of this part must be assessed by the committee to determine if the proposed change is consistent with this part and the permit. Each permitted alteration of marshlands shall be reviewed by the department on a five-year basis, or when noncompliance with the purpose for which the permit was issued is evident, to determine if the use of the marshland is consistent with the intent of this part. If the permit holder is found not to be in compliance with this part, the committee shall take action as authorized under Code Section 12-5-291.

(o) All plans, documents, and materials contained in any application for any permit required by this part shall be made a part of the permit, if granted, and conformance to such plans, documents, and materials shall be a condition of the permit. No change or deviation from any such plans, documents, or materials shall be permitted without the prior notification and approval of the committee.

(p) The permittee shall notify the department of completion of a project within 30 days of completion.

(q) If, prior to completion of review of an application under this part, the committee receives notice of the denial of a permit or authorization necessary for the project, review

of the project shall be suspended and, if the denial becomes final, the application shall stand denied.

(r) If an area has both marshlands as defined in Code Section 12-5-282 and dynamic dune fields as defined in Code Section 12-5-232, it shall be subject to the jurisdiction of both such parts. In the event of a conflict between this part and Part 2 of this article, the commissioner shall determine which part shall apply so as to best protect the public interest.

Chapter 8. Opportunities to Increase the Utilization of 401 Water Quality Certification in Georgia's Coastal Nonpoint Source Program:

Recommended Actions Regarding the State's Water Quality Standards With Emphasis on Protection of Wetlands and Riparian Areas

8.1 Introduction

In 1989, the U.S. Environmental Protection Agency (USEPA) released a guidance document entitled “*Wetlands and 401 Certification: Opportunities and Guidelines for States and Eligible Indian Tribes*” (Guidance) (April 1989). At the beginning of the document, opportunities were identified for the 401 water quality certification to fulfill many goals for state water quality and wetland protection and included the following:

- *It is a cooperative federal/State program and it increases the role of States in decisions regarding the protection of natural resources;*
- *It gives States extremely broad authority to review proposed activities in and/or affecting State waters (including wetlands) and, in effect, to deny or place conditions on federal permits or licenses that authorize such activities;*
- *It is an existing program which can be vastly improved to protect wetlands without major legislative initiatives;*
- *Its proper implementation for wetlands should integrate many State programs related to wetlands, water quality, and aquatic resource preservation and enhancement, to ensure consistency of activities with these State requirements. Examples of such programs include nonpoint source programs, coastal zone management, and floodplain management. (page 5)*

Through research and discussion regarding various state 401 certification programs, a comprehensive review was undertaken to identify steps for Georgia to take to ensure that the state's authority under Section 401 is exercised in a manner that achieves the goal of the Clean Water Act and reflects Georgia's role at the forefront in administering coastal water quality programs. The tasks that are defined in Chapters 8-10 are a result of this effort. Chapter 8 will specifically review and provide actions that may be taken regarding the state's water quality standards with emphasis on wetland protection.

8.1.2 Overview of 401 Certification and Wetland Protection

While the federal Section 404 program addresses many discharges into waters of the State (including wetlands), and other federal agencies have environmental review

programs which benefit wetlands, these do not substitute for Georgia's responsibilities under Section 401. A State's authority under Section 401 includes consideration of a broad range of chemical, physical, and biological impacts. The State's responsibility includes acting upon the recognition that wetlands are critical components of healthy, functioning aquatic systems.

It is important, however, to keep in mind the limitations of 401 certification when considering a comprehensive approach to protecting wetland resources. *The primary limitation is that if 401 certification is the only tool a State has to protect wetlands, it cannot place limits on activities which do not require a federal license or permit.* Some activities such as drainage or groundwater pumping can have severe impacts on the viability of wetlands, but may not require a permit or license. *Therefore, it is important for the State to integrate its 401 certification and coastal management federal consistency review processes so that the provisions of each program augment the other to provide more comprehensive protection.* This approach not only strengthens protection, it reduces duplication of State efforts and coordinates permit review for applicants.

8.2 Actions Regarding the State's Water Quality Standards to Further Georgia's Coastal 401 Water Quality Certification

Implementation of the following tasks in this chapter would utilize a programmatic approach to fulfill the following EPA/NOAA NPS management measure for protection of wetlands and riparian areas:

Protect from adverse effects wetlands and riparian areas that are serving a significant NPS abatement function and maintain this function while protecting the other existing functions of these wetlands and riparian areas as measured by characteristics such as vegetative composition and cover, hydrology of surface water and ground water, geochemistry of the substrate, and species composition.

More specifically, the following tasks would fulfill the management measure through programmatic approaches ("Use permitting, licensing, certification, and nonregulatory approaches to protect wetland functions") stated on pages 32-35 of the 2005 EPA document entitled *National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution*". The specific programmatic approaches provided below include: (a) strengthening the State's water quality standards and (b) establishing, maintaining, and strengthening regulatory and enforcement programs through conditions in federal permits and licenses issued under CWA Section 401 (page 35).

In addition, strengthening the legal recognition of the State's 401 program and the State's water quality standards could significantly strengthen Georgia's strategy to address the conditional approval of the Coastal NPS Program. More specifically, as discussed in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for §6217 of the Coastal Zone Act Reauthorization Amendments of 1990*

(CZARA), NOAA and EPA will approve the use of section 401 certifications to meet program requirements where States can demonstrate the following:

There is back-up authority (e.g., water quality authority) that can be used, as described above, by the State to enforce conditions or revoke certification.

Task 1. The State of Georgia’s definition for “wetlands” is found on page 94 of the current standards (Revised – November 2005) under Section 391-3-6.17(qq) entitled “Sewage Sludge (Biosolids) Requirements”. This definition should be moved and be explicitly incorporated within the definition of “waters” under Section 391-3-6-.03(l) in Georgia’s water quality standards (page 8 of the current standards). As a result, wetlands will be clearly and specifically defined and designated as surface waters of the State of Georgia.

It may seem minor, but from every standpoint, it is important to have wetlands specifically designated as surface waters in State water quality standards. First, it precludes any arguments that somehow wetlands are not covered by water quality standards. Second, it predisposes decision makers (e.g., 401 certification personnel, head of agency or water quality board, judges on the courts that may review these decisions) to consider the importance of wetlands as part of the aquatic ecosystem. Third, it makes it clear that wetlands are to be treated as waters in and of themselves for purposes of compliance with water quality standards and not just as they relate to other surface waters.

Under Section 391-3-6-.03(l) on page 8 of the current standards (Revised-November 2005), Georgia’s water quality standards define “water” or “waters of the State” to mean

*“any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, **wetlands**, and all bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.”*

However, Georgia’s definition for “wetlands”, which is equivalent to the federal definition, is not found until page 94 of the current standards under Section 391-3-6.17 entitled “Sewer Sludge (Biosolids) Requirements.” The State’s definition for wetlands is as follows:

*“**Wetlands**” means those areas that are inundated or saturated by surface Water or ground Water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” (Chapter 391-3-6-.17(2)(qq))*

In order to eliminate any questions pertaining to the points made above, it is recommended to move the wetlands definition to the forefront of the state water quality

standards where the definition of “waters of the State” is addressed (Chapter 391-3-6-.03(3)(l). The State’s definition of wetlands is consistent with federal definition of “wetlands” with the exception that the State excluded the term “sufficient” after the word “duration” and thus the Federal definition reads “...at a frequency and duration **sufficient** to support ...”

Please note that Tasks 1 and 3 (see below) should be addressed jointly in a comprehensive manner.

Task 2. The State of Georgia should incorporate a more comprehensive “antidegradation policy” into the State’s existing policy. Additionally, the 401 water quality certification program should be incorporated into the language of the State’s updated antidegradation policy. Such implementation would not only strengthen the State’s 401 water quality certification program but also improve the antidegradation intent and language.

The State of North Carolina’s antidegradation policy (North Carolina Administrative Code 15A NCAC 02B.0201 “Antidegradation Policy”) is provided below (Attachment 5). More specifically, the State of North Carolina outlined procedures within their antidegradation regulatory language to meet the requirements of maintaining “waters with quality higher than the standards”. In addition, the state’s water quality 401 certification is identified within the antidegradation policy language as well as references to state-established criteria and evaluations of such permits. The language specifically states:

Activities regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) which require a water quality certification as described in Section 401 of the Clean Water Act (33 U.S.C. 1341) shall be evaluated according to the procedures outlined in 15A NCAC 2H .0500. Activities which receive a water quality certification pursuant to these procedures shall not be considered to remove existing uses. The evaluation of permits issued pursuant to G.S. 143-215.1 that involve the assimilation of wastewater or stormwater by wetlands shall incorporate the criteria found in 15A NCAC 2H .0506(c)(1)-(5) in determining the potential impact of the proposed activity on the existing uses of the wetland per 15A NCAC 2H.0231. (15A NCAC 02B .0201(f))

The State of Georgia should review and consider incorporation of similar language into the State’s antidegradation policy.

Attachment 5.
North Carolina Administrative Code
15A NCAC 02B.0200 – Antidegradation Policy

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS APPLICABLE TO SURFACE WATERS AND WETLANDS OF NORTH CAROLINA

15A NCAC 02B .0201 ANTIDEGRADATION POLICY

(a) It is the policy of the Environmental Management Commission to maintain, protect, and enhance water quality within the State of North Carolina. Pursuant to this policy, the requirements of 40 CFR 131.12 are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars (\$13.00). These requirements shall be implemented in North Carolina as set forth in Paragraphs (b), (c), (d), (e) and (f) of this Rule.

(b) Existing uses, as defined by Rule .0202 of this Section, and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses. In cases where the Commission or its designee determines that an existing use is not included in the classification of waters, a project which shall affect these waters shall not be permitted unless the existing uses are protected.

(c) The Commission shall consider the present and anticipated usage of waters with quality higher than the standards, including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and shall not allow degradation of the quality of waters with quality higher than the standards below the water quality necessary to maintain existing and anticipated uses of those waters. Waters with quality higher than the standards are defined by Rule .0202 of this Section. The following procedures shall be implemented in order to meet these requirements:

- (1) Each applicant for an NPDES permit or NPDES permit expansion to discharge treated waste shall document an effort to consider non-discharge alternatives pursuant to 15A NCAC 2H .0105(c)(2).
- (2) Public Notices for NPDES permits shall list parameters that would be water quality limited and state whether or not the discharge shall use the entire available load capacity of the receiving waters and may cause more stringent water quality based effluent limitations to be established for dischargers downstream.
- (3) The Division may require supplemental documentation from the affected local government that a proposed project or parts of the project are necessary for important economic and social development.
- (4) The Commission and Division shall work with local governments on a voluntary basis to identify and develop appropriate management strategies or classifications for waters with unused pollutant loading capacity to accommodate future economic growth.

Waters with quality higher than the standards shall be identified by the Division on a case-by-case basis through the NPDES permitting and waste load allocation processes (pursuant to the provisions of 15A NCAC 2H .0100). Dischargers affected by the requirements of Paragraphs (c)(1) through (c)(4) of this Rule and the public at large shall be notified according to the provisions described herein, and all other appropriate provisions pursuant to 15A NCAC 2H .0109. If an applicant objects to the requirements to protect waters with quality higher than the standards and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of General Statute 143-215.1(e) and 150B-23.

(d) The Commission shall consider the present and anticipated usage of High Quality Waters (HQW), including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and shall not allow degradation of the quality of High Quality

Waters below the water quality necessary to maintain existing and anticipated uses of those waters. High Quality Waters are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The procedures described in Rule .0224 of this Section shall be implemented in order to meet the requirements of this part.

(e) Outstanding Resource Waters (ORW) are a special subset of High Quality Waters with unique and special characteristics as described in Rule .0225 of this Section. The water quality of waters classified as ORW shall be maintained such that existing uses, including the outstanding resource values of said Outstanding Resource Waters, shall be maintained and protected.

(f) Activities regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) which require a water quality certification as described in Section 401 of the Clean Water Act (33 U.S.C. 1341) shall be evaluated according to the procedures outlined in 15A NCAC 2H .0500. Activities which receive a water quality certification pursuant to these procedures shall not be considered to remove existing uses. The evaluation of permits issued pursuant to G.S. 143-215.1 that involve the assimilation of wastewater or stormwater by wetlands shall incorporate the criteria found in 15A NCAC 2H .0506(c) (1)-(5) in determining the potential impact of the proposed activity on the existing uses of the wetland per 15A NCAC 2H .0231.

History Note: Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);

Eff. February 1, 1976;

Amended Eff. October 1, 1995; August 1, 1995; February 1, 1993; April 1, 1991; August 1, 1990;

RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;

Amended Eff. October 1, 1996.

Task 3. The State should develop and implement water quality standards that protect the full range of coastal wetland functions.

Although the *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, no. 99-1178 (January 9, 2001) (“SWANCC”) decision limits federal CWA jurisdiction over isolated, intrastate, non-navigable waters and wetlands, a significant percentage of coastal wetlands still fall under the definition of “waters of the US” (also see Chapter 10 Section 10.1 for further discussion).

The State should consider natural water quality functions when specifying designated uses for wetlands, and include biological and hydrological narrative criteria to protect the full range of wetland functions. Table 4-6 and Appendix F in the 2005 EPA document entitled “*National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution*” provide examples of other state water quality standards developed that specifically address wetland functions. More specifically, the following examples of State Guides for Wetland Protection and Management should be reviewed and considered as templates for the coastal Georgia:

- Wetlands Assistance Guide (Maryland)
- Living with Michigan’s Wetlands (Michigan)
- Wetlands Conservation Guide (Oregon)
- Wetlands Assistance Guide (Texas).

In addition, the USEPA developed a document entitled “*Water Quality Standards for Wetlands: National Guidance*” (1990) which can provide additional resources. Please note that Tasks 1 and 3 (see below) should be addressed jointly in a comprehensive manner.

Task 4. The State should modify its existing water quality standards regulations to accommodate special wetland considerations. More specifically, EPD should identify and designate wetlands and other biologically significant coastal waterbodies as Outstanding Resources Waters (ORWs). Although Georgia mentions ORWs in the State’s water quality standards (see Chapter 4), no actual ORWs are identified. These designated waters can become a much larger part of the State’s overall antidegradation and nonpoint source pollution effort along the coast.

One extremely promising approach taken by some of the States has been to designate wetlands and other waterbodies as outstanding resources waters (ORWs), in which water quality must be maintained and protected according to EPA’s regulations on antidegradation (i.e., no degradation for any purposes is allowed, except for short term changes which have no long term consequences). ORW designation provides the highest tier of protection afforded under water quality standards.

EPA designed this classification not only for the highest quality waters, but also for water bodies which are “important, unique, or sensitive ecologically, but whose water quality as measured by the traditional parameters (dissolved oxygen, pH, etc.) may not be particularly high or whose character cannot be adequately described by these parameters.” (48 Fed. Reg. 51,400, 51, 403 (1983) (preamble)).

The ORW language within the State’s antidegradation portion of the water quality standards are provided in Chapter 4. However, the State of North Carolina example (Appendix 4) provides an excellent example of how the *joint* antidegradation and ORW designation can afford more protective water quality standards to “waters higher than the standard water quality”. North Carolina’s freshwater and saltwater quality standards for ORWs include (but are not limited to): stormwater management and controls applying to land within one mile of and that drains to the designated ORW areas; specific water quality standards and/or discharge restrictions for new or expanded NPDES permitted wastewater discharges located upstream of a designated ORW; loading rates; increased buffer zones, restrictions on new or expanded marinas, and Erosion and Sedimentation Control Plans.

As stated in the North Carolina rule “Additional actions to protect resource values shall be considered on a site specific basis during the proceedings to classify waters as ORW and shall be specified in Paragraph (e) of this Rule. These actions may include *anything* [emphasis added] within the powers of the Commission. Especially note the sections entitled “Petition Process”, “Quality Standards for ORW” and “Listing of Waters Classified ORW with Specific Actions Waters Classified as ORW with specific actions to protect exceptional resource values”.

Task 5. The State should continue to make more effective use of its exiting narrative water quality standards (including the antidegradation policy) to protect the integrity of wetlands.

The State's water quality certification coordinator effectively uses existing narrative water quality standards during permit review to protect the State's water quality. However, further development of the water quality standard components mentioned above would afford even greater protection to the coast's wetland and riparian resources.

For example, in addition to "natural water quality" criteria, a narrative criterion applicable to warm water aquatic habitat provides that "flow shall not be altered to a degree which will adversely affect the aquatic community." This criterion which addresses hydrological changes is a particularly important, but often overlooked, component to include in water quality standards to help maintain wetland quality. Changes in flow can severely alter the plant and animal species composition of a wetland, and destroy the entire wetland system if the change is great enough.

Chapter 9. Opportunities to Increase the Utilization of 401 Water Quality Certification in Georgia's Coastal Nonpoint Source Program:

Programmatic Actions

As stated earlier in the document, it is important for the State to integrate its 401 certification and coastal management consistency review processes so that the provisions of each program augment the other to provide more comprehensive protection. This approach not only strengthens protection, it reduces duplication of State efforts and coordinates permit review for applicants.

The following programmatic actions represent tasks that will help identify the coastal 401 water quality certification program, articulate program goals and objectives, and guide the joint coordinated activities of the certification relative to the GADNR's EPD, CRD and WRD's programs, as well as other federal and state partnering agencies. In addition, implementation of these tasks will strengthen the coastal 401 water quality certification program.

Task 1. Hire coastal 401 water quality certification staff to work closely with the State 401 Coordinator, EPD coastal and statewide Nonpoint Source Management Staff, Coastal Resources Division, and federal and state programs to address projects affecting coastal and estuarine waters of Georgia.

Currently, Georgia has only one water quality certification coordinator to manage water quality certification for the entire state. Hiring staff to implement the State's coastal 401 water quality certification program would serve as a portion of Georgia's strategy to address the conditional approval of the State's Coastal NPS Program. As discussed in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for §6217 of the Coastal Zone Act Reauthorization Amendments of 1990* (CZARA), NOAA and EPA stipulated approval of the use of 401 certifications to meet program requirements where States demonstrate the following:

The certifications, either alone or in concert with other programs, are sufficient to address the full range of applicable activities and sources of nonpoint pollution and geographic areas for which they are proposed.

Other funding sources may be available to hire more coastal 401 staff, such as transportation monies and/or application fees. These alternative funding sources are discussed in detail under Task 7 of this chapter.

Task 2. Implement a GIS tracking system to monitor project compliance with 401 water quality certification conditions.

Currently, Georgia has dedicated Section 319 funding (in coordination with the hiring of a coastal 401 staff person) to develop an enhanced tracking system in a GIS format to monitor compliance of 401 certified federal permits and licenses. Implementation of this task would serve to strengthen Georgia's strategy to address the conditional approval of the State's Coastal NPC Program. As discussed in the *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for §6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA)*, NOAA and EPA stipulated approval of the use of 401 certifications to meet program requirements where States demonstrate the following:

The State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met.

The state currently has an electronic tracking system but the system is not georeferenced or coordinated with the new 2007 Coastal Resources Division GIS tracking database for marsh and shore permits and revocable licenses. A new 401 tracking system in a GIS format will improve 401 staff's ability to determine contextual site information. For example, 401 staff could easily see stream impairments and existing permits in order to develop more accurate 401 conditions as well as track them through time.

Task 3. The Georgia Department of Natural Resources' Environmental Protection Division, in coordination with the Coastal Resources Division, should develop a "Coastal 401 Water Quality Certification Program Scope and Strategy" document. The document would identify the program scope and collective vision for an effective program, articulate program goals and objectives, and guide the joint activities of EPD's 401 water quality certification program, nonpoint source program, erosion and sedimentation program and CRD's coastal management program into an effective coastal water quality certification implementation.

Although somewhat brief in nature, the white paper entitled "State of California State Water Resources Control Boards, CWA Section 401 Water Quality Certification Program: Section 401 Program Scope and Strategy" (Appendix 4) provides a broad overview of what California's 401 program entails. Program scope, special responsibilities, program goals and objectives, and implementation are discussed. Note, in particular, the discussion regarding the 401 program's role for wetland protection and hydromodification regulation.

As stated in Chapter 1 of this document, NOAA and EPA specifically stated the 401 water quality certification program may provide a mechanism for ensuring that State water quality standards are met, such as hydromodification and wetlands and riparian areas. Further discussion on how these efforts can be met utilizing 401 certification is provided in Chapter 10.

Other important components in California's Program Scope and Strategy document identifies the importance of the watershed perspective and the need to develop the ability to systematically analyze and appropriately regulate the water quality impacts of hydromodification, cumulative impacts, and watershed-level impacts. Within their response to Georgia's coastal NPS program submittal, NOAA/EPA stated that in order to approve the use of Section 401 certification to meet Georgia's coastal nonpoint source program requirements, the following would need to be included:

The State has a monitoring system or other tracking methods by which to assess whether permit conditions have been met (NOAA/EPA Findings Document, 2002).

The drafting and ultimate finalization of a Coastal Georgia 401 Water Quality Certification Program Scope and Strategy document would enable joint agency division recognition, clarification, collective vision, and guidance. In addition, the development of such a document would be an initial step in providing the State's regulatory sectors with some recognition and predictability regarding the coastal 401 program.

Task 4. The Georgia Department of Natural Resources' Environmental Protection Division should develop a "Coastal Georgia Section 401 Water Quality Certification Guidance" document to improve internal management of the program, assist in maintaining consistent coastal- and state-wide approach to 401 certification, and provide applicants with information that may be helpful in completing their 401 water quality certification application.

A copy of two state's documents are provided below in Appendices 5 and 6.

The "Idaho 401 Guidance" document provides general information regarding a description of Section 401 of the Clean Water Act, guidance applicable to the federal permits and licenses addressed by the state 401 program, and time frames and procedures the state follows with respect to most 401 certifications. The GADNR should consider the drafting of a document similar to this template document that could be provided under a new "401 Water Quality Certification" component of the GADNR/EPD website.

The second document, Ohio EPA's "Section 401 Water Quality Certification Application Primer" was prepared by state 401 staff to provide applicants with information that may be helpful in completing the State's 401 certification application.

Again, jointly with Task 3 of this chapter, initiating and producing such a document will help the GADNR to proceed toward the ultimate recognition of the coastal Georgia 401 certification program: 401 certification regulations which would be effective not only in conserving the quality of the State's waters, but in providing the regulatory sectors with some predictability of the State's actions.

Task 5. The State should develop regulations and guidelines for its 401 water quality certification to clarify the program, codify the decision process and criteria,

provide consistency and predictability, and to incorporate special wetland considerations into the more traditional water quality approaches.

A comprehensive set of 401 certification implementing regulations would have both procedural and substantive provisions which maximize the State agency's control over the process and which make its decisions defensible in court. The very fact of having 401 certification regulations goes a long way in providing the State agency that implements 401 certification (GADNR/EPD) with credibility in the courts. When 401 certification regulations are carefully considered, they can be very effective not only in conserving the quality of Georgia's waters, but in providing the regulated sectors with some predictability of State actions, and in minimizing the State's financial and human resource requirements as well.

Attachment 4 in Chapter 6 provided some basic procedural considerations of 401 certification implementing regulations. However, Appendices 7 and 8, which details the States of North Carolina and South Carolina's Section 401 Water Quality Certification Rules, represent current and detailed adaptations of 401 regulations. The North Carolina regulations are unique in their discussion of "review of applications" and "replacement or mitigation" review. South Carolina's 401 regulations provides a broader discussion of their 401 program, the necessary coordination regarding coastal zone consistency certification, the *scope* of review for application decisions, and enforcement of certification decisions and conditions.

Development of 401 program regulations, as discussed in this task, can be incrementally developed. For example, the opportunity and decision to produce the initial documents discussed in Tasks 3 and 4 of this chapter would only help progress the State toward better defining the needs of a Georgia 401 program regulation.

Task 6. The State should review existing State 401 standard conditions and create and incorporate more comprehensive coastal 401 water quality certification standard permit conditions to protect coastal water quality and habitat for various federal projects that are proposed throughout the coast. In addition, staff should review and incorporate into certifications the coastal nonpoint source management measures including, but not limited to, urban new and existing development, watershed management, wetlands and riparian areas, and hydromodification.

NOAA and EPA recommended in their 2002 findings for Georgia to use 401 water quality certification as a mechanism for ensuring that state water quality standards are met for various projects, including hydromodification. Attachment 6 (below) is a compilation of various states' standard conditions that are considered and conditioned during 401 water quality certification review. In addition, incorporation of the nonpoint source management measure tasks provided in this document should be reviewed and incorporated, where appropriate, into coastal 401 water quality certifications.

Attachment 6. Examples of Other States' 401 Water Quality Certification Standard Conditions

Please note: The individual conditions from other states have been altered to state "E" versus the former state water quality certification agency. However, actual numerical values from each state's examples below have not been changed and may not, therefore, reflect appropriate Georgia water quality standards.

The following water quality certification measures assure water quality are protected by EPD's 401 water quality certification process and include (this sentence can be used for selected conditions below):

- Certification to EPD, by the design engineer, that all aspects of the project have been implemented according to the project after construction is completed
- Notification to EPD, in writing by the applicant, that pollution control measures specified in the Corps permit and any special conditions specified by the EPD have been properly implemented upon completion of the proposed project
- Submittal of a Best Management Practices (BMP) Plan to EPD for approval review. The plan should include management measures that will be taken to ensure permanent re-vegetation or cover of disturbed areas
- Implementation of appropriate management measures as provided in the Coastal Georgia Stormwater Supplement, Georgia Nonpoint Source Management Program document, as amended, and/or EPAs, "Stormwater Management for Construction Activities," document, or other EPD-approved documents and management measures
- Implementation of an EPD approved system for the collection, storage, treatment and disposal of sewage and other putrescible wastes
- Implementation of a Spill Prevention Control and Counter Measures (SPCC) Plan for all onsite fuel or chemical storage tanks or facilities. Immediate notification is required to EPD of a significant, visible oil sheen in the vicinity of the proposed activity
- Removal and proper disposal of all construction and worker debris including trash and garbage. Soil contaminated by paint or chemical spills, oil spills, etc. must also be immediately cleaned up and disposed of in an approved manner
- Immediate removal and disposal in an approved manner all construction debris and trash. Soil contaminated by paint or chemical spills, oil spills, etc., must be immediately cleaned up and disposed of in an approved manner
- Prevention of airborne pollutant such as spray paint, herbicides, excessive road dust, etc. from entering the waterbodies
- Installation of floating turbidity screens as necessary, to minimize downstream turbidity to the maximum extent practicable, visual monitoring, and measures of background turbidity. Operations will be suspended when turbidity resulting from project implementation exceeds background turbidity by more than 50 nephelometric turbidity units (n.t.u.). Operations may resume when the turbidity decreases to within acceptable levels ;
- Installation of management measures such as floating turbidity screens to minimize downstream turbidity to the extent practicable to include:
- Visual monitoring and measure of turbidity upstream and 100-feet downstream of the proposed project and suspension of operations should downstream turbidity exceed upstream turbidity by 50 n.t.u.
Operations may resume when the turbidity decreases to within acceptable levels.
- Minimization of downstream turbidity to the maximum extent practicable to include weekly visual inspections and sample for turbidity in the receiving stream on a monthly basis upstream of the project and a.) 500 feet downstream of the project, or b.) in the middle and at the end of a turbid plume if it is readily visible, noting the distance from the project that each sample was taken, or c.) at ADEM approved alternate locations

- Performing weekly visual inspections and sample for turbidity in the affected waterbody at least once during project implementation upstream of the project, and a.) 100-feet downstream of the project, or b.) in the middle and at the end of a turbid plume if it is readily visible, noting the distance from the project that each sample was taken, or c.) at EPD approved alternate locations
- In no case shall the in-stream turbidity 100-feet below the dredge discharge exceed 50 n.t.u. over the turbidity measured upstream from the dredge
- Installation of management measures to ensure that the activities authorized by the certification do not significantly contribute to or cause in-stream dissolved oxygen concentrations to decrease below 5- mg/l
- Monitor in-stream dissolved oxygen levels and implement appropriate measures as necessary to ensure that the activities authorized by this certification do not significantly contribute to or cause in-stream dissolved oxygen concentrations to decrease below 5-mg/l
- Monitoring of dissolved oxygen levels at EPD approved locations once a month and submittal of results to EPD on a quarterly basis. Sample dates must be a minimum of 2-weeks apart
- Provide for a minimum cubic feet per second (CFS) flow from the structure sufficient to protect fish and wildlife at all times
- Provide for a minimum flow from an impoundment sufficient to protect fish and wildlife during the filling process. The impoundment will not be used for water supply and the discharge from the lake will equal natural inflow from feeder streams after filling
- All materials used as fill or for construction purposes must be non-toxic, non-leaching, non-acid forming and free of solid waste or other debris
- Permanent or temporary raised creek crossings must be constructed with pipes to safely pass expected mean water flow of the stream for the time of year and length of time that they are installed. Placement of rock-fill without pipes for passage of water is not acceptable. Each raised creek crossing must be designed to ensure structure integrity and stability for safe passage of water flow generated by expected precipitation events while the structure is in place
- Marinas may not increase the number of berthing areas unless they are equipped with all facilities and appurtenances typically required by EPD for new marinas (i.e. trash receptacles, receptacles for fish offal and carcasses, an accepted spill prevention control and countermeasure plan for fueling facilities, and a sewage pump out system where appropriate)
- Bilge or ballast water pumped from ships or boats (e.g. dredge or construction barges, tugboats, fishing boats, pleasure craft, etc.) will not be discharged to waters of the State of Georgia without removal of solids, oils, fuel, petroleum by-products and toxic compounds). It is recommended that bilge and ballast water be sterilized to prevent problems associated with potential disease causing or noxious organism problems.
- Bilge or ballast water pumped from the dredge or barges will not be discharged to waters of the State of Georgia without removal of solids, oils, fuel, petroleum by-products and toxic compounds. It is recommended that bilge and ballast water be sterilized to prevent problems associated with potential disease causing or noxious organism problems.
- No rubbish, trash, garbage, or other such materials will be discharged overboard into waters of the State of Georgia. Litter and refuse from vessels or a marina shall be disposed in a manner consistent with state and local regulations (e.g. trash receptacles, receptacles for fish offal and carcasses)
- The applicant shall perform regular cleanup and proper disposal of floating or submerged trash and garbage in the marina
- Toilet wastes, domestic wastewater and other domestic wastes must be pumped out to an approved onsite sewage system or municipal sewer, or must be treated by an approved marine sanitation device prior to discharge to waters of the State of Georgia
- Dredged material will not be sidecast or otherwise placed in adjacent waters or wetlands
- Application for valid NPDES discharge permits for all onshore mineral storage, handling, or transloading facilities prior to beginning operations above

- The applicant shall not dredge within one-half mile upstream nor one-half mile downstream of any municipal or private water intake, or pipeline or in-stream discharge structure
- All material returned to the waterbody, after removal of the desired materials has occurred will be directed back into the dredge cut. The discharge structure shall be placed as near the channel bottom as practicable
- Dispose of fill material into waters of the state from dredging activities on upland areas above the normal low water of the river is prohibited
- Conduct monitoring to determine the impact of the discharge, if any, on the water quality of the receiving water. Water samples shall be collected from the surface of the waterbody within 100-feet immediately upstream and 100-feet immediately downstream from the dredge. These samples must be collected within the flow line of the river above and below the active dredge discharge. Sampling shall commence upon the effective date of the Section 404 permit from the Army Corps of Engineers and continue with the following schedule:
 - During the 14-day calendar period beginning with the start of dredging operations, the applicant shall collect one sample from each location specified above at least once per calendar day when the dredge is discharging
 - During the following 90-calendar day period, one sample from each location specified above will be collected at least once per calendar week, when the dredge is discharging
 - During the following period and until expiration of the Section 404 permit, one sample from each location specified above will be collected at least once per calendar month when the dredge is discharging
 - EPD may reduce or increase sampling frequency established above to protect water quality.
 - Each collected sample shall be preserved and analyzed for turbidity in accordance with the requirements of 40 CFR Part 136 and the results submitted to EPD on a quarterly basis.
 - If upland disposal areas are utilized, adequate spoil disposal areas will be provided for the life of the dredging and disposal activity and until the disposal area is reclaimed or adequately stabilized, and for pumping and discharge rates to ensure settling of suspended solids within the confines of the spoil disposal area and sufficient to ensure that turbidity in the return water will not cause substantial visible contrast with the receiving waters, or result in an increase of 50 n.t.u. above background turbidity levels in receiving waters
 - Notification to the EPD Nonpoint Source Unit, Field Operations Division, of the locations and schedules of the dredge for the upcoming month at the beginning of each month
 - Coordination with EPD to determine the need for an air permit prior to commencement of loading/unloading operations.
 - Promote undisturbed natural groundcover to reduce erosion and sedimentation in Section 303(d) listed waterbodies to promote recovery and/or perpetuation of healthy aquatic organisms.

Task 7. The State should consider implementing application fee requirements in addition to other sources of funding. These fees (or portions of the fees) should be utilized to budget coastal 401 staff positions.

A very significant concern for all States who plan to expand their 401 certification program is the availability of funding. Application fee requirements are a potential, and very important, funding source to supplement Georgia's limited program budget. At the present, the state has only one 401 water quality certification staff for the entire state.

One form of leveraging administrative resources is through the implementation of application fee requirements. Several states' examples are provided below representing both simple and complex application fee requirements. North Carolina also provides

express permits which are approximately five times the application fee cost of the normal fee requirements. Express permits only apply to nationwide permits and buffer projects. Individual permits are not possible under the express review program due to the ACOE public notice requirements which does not allow express review.

Another form of leveraging administrative resources include utilizing Department of Transportation (DOT) monies to fund several positions. The state of North Carolina actively funds approximately 13 (of its 40+) staff for 401 DOT review. Other sources of 401 staff funding to consider may include EPA grants (Section 319, wetlands program, competitive implementation).

Appendices 9-14 provide examples of six different states' 401 certification application fee programs. Application fees may be based on the quantity of natural resources impact, the type of activity being proposed, or the type of permit being processed. Although some of the application fee structures are not currently available to Georgia, the examples provide a host of varied proponents to be considered for fee requirements.

Task 8. The “Operating Agreement between the U.S. Army Corps of Engineers, The Georgia Department of Natural Resources Environmental Protection Division and Coastal Resources Division” should be finalized and implemented.

The draft document entitled “Operating Agreement between the U.S. Army Corps of Engineers, The Georgia Department of Natural Resources Environmental Protection Division and Coastal Resources Division” was last reviewed in 2001. This important MOA should be finalized in order to clarify all agreements between these two agencies relative to, but not limited to, water quality certification, USACE nationwide general permits, permit application coordination, mitigation banks, compliance and enforcement, and other state coastal environmental acts to ensure consistency with the enforceable programs and policies of the Georgia Coastal Management Program.

Task 9. The State should develop and implement a freshwater wetland protection component to the coastal 401 certification program.

A draft document was prepared by the University of Georgia's (UGA) River Basin Center (RBC) on behalf of the GADNR/EPD. The report addressed the role of 401 water quality certification in relation to coastal *freshwater* wetland protection. Once the UGA-RBC document becomes available, it is suggested that the document's recommendations be considered within the overall coastal Georgia 401 certification program.

Task 10. The State should initiate and improve upon existing inventories of its coastal wetland resources.

The National Wetlands Inventory (NWI) maps provide information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats (Cowardin et al. 1979). These maps are the best consistent source of data for the national classification for wetland marine habitats. However, they were last updated on a statewide basis for

Georgia in the 1980s. Georgia's coastal area is extremely dynamic and, therefore, wetland areas decrease, increase, and change shape over time. Understanding wetland changes over time is important in determining threats to wetland function and subsequently, strategies in which to abate these threats.

The GADNR/CRD recently initiated work on an EPA Wetland Program Development Grant that will provide numerous outcomes and products:

- (a) The project will update the NWI maps for the six coastal counties in order to better delineate wetland habitats. Updated maps will be used to track the gains or losses of tidal wetlands and can be used to track isolated freshwater wetlands as well. The new NWI maps will be incorporated into the Comprehensive Planning process for communities in the coastal counties as required through the GA Department of Community Affairs, the GA Coastal Management Program's technical assistance and coastal permitting activities, coastal monitoring efforts, and local government planning activities
- (b) Inventory, quantify, and map armored wetland shorelines in coastal Georgia;
- (c) Study the feasibility of alternative techniques to shoreline hardening in tidal wetlands coastwide;
- (d) Provide a robust wetland data set for estuarine portion of the Satilla River basin to quantify the impacts of impaired vegetative edge;
- (e) incorporate findings into the Georgia Coastal Management Program – Technical assistance to local government land use decision makers;
- (f) Incorporate findings into the Georgia Coastal Nonpoint Source Pollution Control Program.

The results of this effort will greatly enhance 401 water quality certification efforts to further identify and protect wetland resources. In addition, several management measures may be met through the implementation and incorporation of this project within a coastal 401 certification program. The MMs are as follows:

Management Measure for Protection of Wetlands and Riparian Areas: Protect from adverse effects wetlands and riparian areas that are serving a significant NPS abatement function and maintain this function while protecting the other existing functions of these wetlands and riparian areas as measured by characteristics such as vegetative composition and cover, hydrology of surface water and ground water, geochemistry of the substrate, and species composition.

Management Measure for Restoration of Wetlands and Riparian Areas: Promote the restoration of the preexisting functions in damaged and destroyed wetlands and riparian systems, especially in areas where the systems will serve a significant NPS pollution abatement function.

Management Measures for Hydromodification: Streambank and Shoreline Erosion: Eroding Streambanks and Shorelines. (1) Where streambank or shoreline erosion is a nonpoint source pollution problem, streambanks and shorelines should be stabilized. Vegetative methods are strongly preferred unless

structural methods are more cost-effective, considering the severity of wave and wind erosion, offshore bathymetry, and the potential adverse impact on other streambanks, shorelines, and offshore areas.

(2) Protect streambank and shoreline features with the potential to reduce NPS pollution; and

(3) Protect streambanks and shorelines from erosion due to uses of either the shorelands or adjacent surface waters.

Task 11. EPD should develop a “401 Water Quality Certification” webpage which may provide (but not be limited to) the following:

- Applications (PCN, Joint COE application, etc.) and pre-application guidelines
- Wetlands Governing Statutes/Rules (e.g., Section 401 and 404 CWA, Water Quality Standards, Coastal Marsh Protection Act, Erosion and Sedimentation Act, etc.)
- General Information and Policies (What is 401, when need to request 401 WQC/Example of how to fill out PCN/Application fees/Tracking application, permit time frame,)
- Wetland and Stream Mitigation
- Buffer Rules
- Streambank and Shoreline Stabilization Guidance
- Other Georgia or federal guidance documents
- New Coastal Stormwater Supplement (expected Spring 2008)
- Army Corps of Engineers Nationwide permits and Regional conditions
- Green Growth Guidelines
- Projects and activities of concern
- Links (map of coastal counties, US Army Corps of Engineers, USFWS, EPA, EPD Coastal Nonpoint Source Program, DCA, RDC, UGA-MAREX, etc.)

The South Carolina Environmental Quality Control’s “401 Water Quality Certification” website (www.scdhec.net/eqc/water/html/401.html) provides a description of the 401 program and the state’s authority under section 401 of the CWA, the state’s certification process, regulations, wetlands as waters, nationwide permits, exemptions, related documents, contacts, and links. Ohio’s website (www.epa.state.oh.us/dsw/401/concern.html) provides a list of projects and activities of concern.

Task 12. Continue to develop and improve upon a process for state agency review of projects under Section 401/404 permit program during the planning and design stage rather than after the plan/design is complete.

The GADNR/EPD 401 WQC Coordinator meets regularly with COE, USFWS, USEPA, NMFS, and applicants at “pre-application” meetings. These meetings afford the State an opportunity to provide concerns/conditions/suggestions to the permit applicant prior to the project approval process. It is imperative to continue this coordination among the other key 404 state and federal review agencies.

Chapter 10. Opportunities to Increase the Utilization of 401 Water Quality Certification in Georgia's Coastal Nonpoint Source Program:

Actions Needed to Further Georgia's Coastal 401 Water Quality Certification to Achieve Georgia Nonpoint Source Management Management Measures

As discussed in Chapters 1 and 8, as an important component in Georgia's overall strategy to gain full Coastal Nonpoint Pollution Control Program approval by NOAA and EPA and to successfully implement coastal nonpoint source measures, the tool of 401 water quality certification may be highly effective for addressing a number of hydrological, urban development and watershed conditions. This chapter specifically identifies opportunities to utilize 401 water quality certification to lift coastal nonpoint source program conditions. More specifically, this portion of the document reflects the potential efforts under the 401 water quality certification program to reduce the impacts associated with hydrologic, urban new and existing development, and other development modification to Georgia's streams, rivers, wetlands, and lakes. Some management measures and other strategies to address the conditional approval of the State's Coastal NPS Program were also addressed in Chapters 8 and 9.

When discussing specific categories of NPS pollution, "management measures" (MMs) represent effective systems of practices available to prevent or reduce NPS pollution. Implementation of the MMs help to control the delivery of NPS pollutants to receiving water resources by:

- Minimizing pollutants available (source reduction);
- Reducing the flow rate of runoff to allow for deposition of the pollutant or infiltration of runoff ; or
- Remediating or intercepting the pollutant through chemical or biological transformation.

10.1 Wetlands and Riparian Areas Management Measures

The USEPA recently released a July 2005 document entitled "*National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution*" (EPA-841-B-05-003). For purposes of the 2005 EPA guidance document, **wetlands** are defined as:

Those areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal

circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (page 11)

As discussed in Chapter 4, Georgia's definition for wetlands follows the federal definition with the exception of the omission of one word ("sufficient"). As waters of the US, wetlands are afforded protection under the CWA. Although the focus within this document is on the function of wetlands in reducing nonpoint source pollution, it is important to keep in mind that wetlands are ecological systems that perform a range of functions (e.g., hydrologic, flood control, and aquatic and wildlife habitat functions) in addition to pollutant removal. Therefore, adverse impacts on existing wetlands should be avoided to the maximum extent possible.

For purposes of the 2005 EPA guidance document, **riparian areas** are defined as:

A vegetated ecosystem along a water body through which energy, materials, and water pass. Riparian areas characteristically have a high water table and are subject to periodic flooding and influence from the adjacent water body. These systems encompass wetlands, uplands, or some combination of these two landforms. They will not in all cases have all the characteristics necessary for them to be classified as wetlands. (page 11)

As stated in the 2005 EPA guidance document, wetlands and riparian areas can play a critical role in reducing NPS pollution by intercepting surface runoff, subsurface flow, and certain ground water flows. Their role in water quality improvement includes processing, removing, transforming, and storing such pollutants such as sediments, nitrogen, phosphorus, and certain heavy metals. Research also shows that riparian areas function to control the release of herbicides into surface waters. Thus, wetlands and riparian areas buffer receiving waters from the effects of pollutants or they prevent the entry of pollutants into receiving waters.

Although wetlands and riparian areas reduce NPS pollution, they do so within a definite range of operational conditions and cannot be viewed as a treatment mechanism for unlimited amounts of NPS pollution. When hydrologic changes or NPS pollutants exceed the natural assimilative capacity of wetlands and riparian areas, these systems become stressed and can be degraded or destroyed. A degraded wetland has less ability to remove NPS pollutants and to attenuate stormwater peak flows. In addition, a degraded wetland can deliver increased amounts of sediment, nutrients, and other pollutants to adjoining water bodies, thereby acting as a *source* of NPS pollution instead of a treatment.

Therefore, wetlands and riparian areas should be protected to the maximum extent possible from changes that would degrade their existing pollution abatement functions. This protection can be accomplished by applying NPS management measures appropriate to the source of pollutants (e.g., activities associated with agriculture, urban development, forestry, hydromodification, and marinas and recreational boating). Finally, degraded

wetlands and riparian areas should be restored, where possible, to serve as an NPS pollution abatement function.

The 2005 EPA guidance document defined vegetated treatment systems to include vegetated filter strips or constructed wetlands. Vegetated treatment systems can also be a combination of vegetated filter strips and constructed wetlands. In the guidance document, **vegetated filter strips (VFS)** are defined as:

Created areas of vegetation designed to remove sediment and other pollutants from surface water runoff by filtration, deposition, infiltration, adsorption, absorption, decomposition, and volatilization. Vegetated filter strips are densely vegetated sections of land designed to convey runoff in the form of sheet flow across grassed or forested surfaces. A vegetated filter strip is an area that maintains soil aeration as opposed to a wetland, which at times exhibits anaerobic soil conditions. (page 14)

In the 2005 EPA guidance, **constructed wetlands** are defined as:

Wetlands that use natural processes involving wetland vegetation, soils, and their associated microbial assemblages to assist, at least partially, in treating an effluent or other source water. These systems are engineered and constructed in uplands, outside ‘waters of the United States,’ unless the water source can serve a significant restoration function to a degraded system. (page 14)

In areas where naturally occurring wetlands or riparian areas do not exist or cannot be restored to original sites, vegetated treatment systems can be designed and constructed to perform some of the same functions. When such engineered systems are installed for a specific NPS pollution abatement purpose, however, they might not offer the same range of functions that naturally occurring wetland or riparian areas offer.

Constructed wetlands are designed to mimic the pollutant-removal functions of natural wetlands and might lack aquatic functions and species diversity. It is important to note that aquatic plants and benthic organisms used in constructed wetlands serve primarily to remove pollutants. Constructed wetlands may or may not be designed to provide flood storage, ground water exchange, or other functions associated with natural wetlands. In fact, if there is a potential for exposing wildlife to contamination or other detrimental impacts, constructed wetlands should be designed to discourage use by wildlife.

As stated in the 2005 EPA document, “...*The intent of the three management measures under this category is to ensure that the NPS benefits of protecting and restoring wetlands and riparian areas, and of constructing vegetated treatment systems, will be considered in all water pollution control activities in a watershed. These management measures form an essential element of any state NPS pollution program*” (page 18). The management measures for wetlands, riparian areas, and vegetated treatment systems are provided below in Table 2.

Table 2. WETLANDS, RIPARIAN AREAS, AND VEGETATED TREATMENT SYSTEMS MANAGEMENT MEASURES	
A. Protection of Wetlands and Riparian Areas	Protect from adverse effects wetlands and riparian areas that are serving a significant NPS abatement function and maintain this function while protecting the other existing functions of these wetlands and riparian areas as measured by characteristics such as vegetative composition and cover, hydrology of surface water and ground water, geochemistry of the substrate, and species composition.
B. Restoration of Wetland and Riparian Areas	Promote the restoration of preexisting functions in damaged and destroyed wetlands and riparian systems in areas where the systems will serve a significant NPS pollution abatement function.
C. Vegetated Treatment Systems	Promote the use of engineered vegetated treatment systems such as constructed wetlands or vegetated filter strips where these systems will serve a significant NPS pollution abatement function.

10.1.1 Management Measure A. Protection of Wetlands and Riparian Areas

The purpose of this MM is to maintain the water quality benefits of wetlands and riparian areas and to ensure that such areas do not become a source of NPS pollution as a result of degradation. More specifically, the MM focuses on protecting wetlands that help to abate NPS problems as well as on maintaining the function of these wetlands. As stated in the 2005 EPA guidance,

“This protection can include preventing impacts resulting from upland development and upstream channel modifications that erode wetlands, change salinity, kill existing vegetation, and upset sediment and nutrient balances.”

Implementation of numerous tasks defined in Chapter 8 would fulfill this particular MM. Additional tasks are identified below.

EPA is encouraging the preservation and protection of wetlands and riparian areas because these natural systems have been shown to provide many other benefits in addition to NPS pollution reduction. The basis of protection involves avoiding and minimizing impacts on wetlands and riparian areas that control NPS pollution by maintaining the existing functions of these areas, including vegetative composition and cover, flow characteristics of surface water and ground water, hydrology and geochemical characteristics of substrate, and species composition. Wetlands and riparian areas also perform important functions such as:

- Providing a source of food, nesting material, habitat, and nursery areas for a variety of aquatic and terrestrial wildlife;
- Floodwater storage;
- Erosion control;
- Ground water recharge; and
- Maintenance of biological diversity.

The term “NPS abatement function” refers to the ability of a wetland or a riparian area to remove NPS pollutants from runoff passing through the wetland or riparian area. Wetlands and riparian areas have been shown to have useful functions for removing NPS pollutants, including:

- Acting as a sink for phosphorus
- Converting nitrate to nitrogen gas through denitrification
- Removing total suspended solids (TSS), sulfates, calcium, magnesium, and sediments.

The factors of a particular wetland or riparian area and of the surrounding watershed play a significant role in the ability of a wetland or riparian area to retain its existing wetland functions (such as food and habitat for animals, flood storage, and ground water recharge) and serve an NPS pollution abatement function. Several factors determine the pollutant-removal efficiency of a specific wetland or riparian area, including the following:

- Frequency and duration of flooding
- Types of soil
- Slope of landscape
- Types of vegetation
- Balance of nitrogen and carbon
- Ratio of edge to area for the wetland or riparian area; and
- the composition of water and characteristics of the surrounding watershed affect the balance of wetland or riparian function and pollutant removal efficiency.

A permit program administered by the ACOE, EPA, and approved states under section 404 of the CWA regulates the discharge of dredged or fill material into waters of the US, including wetlands (refer to Chapter 5). Although the MM and section 404 program complement each other, the two differ in focus. The MM focuses on protecting wetlands that help to abate NPS problems and to maintain the functions of these wetlands. This protection can include preventing impacts resulting from upland development and upstream channel modifications that erode wetlands, change salinity, kill existing vegetation, and upset sediment and nutrient balances. The section 404 program focuses on protecting wetlands from physical destruction and other pollutant problems that could result from discharges of dredged or fill material.

In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, no. 99-1178 (January 9, 2001) (“*SWANCC*”), the U.S. Supreme Court in a 5-4 decision, limited the ability of the ACOE and EPA to assert CWA jurisdiction over isolated intrastate non-navigable waters. The Supreme Court held that ACOE exceeded its statutory authority by asserting CWA jurisdiction over such waters based solely on the fact they are or could be used as habitat for migratory birds or endangered species (“Migratory bird rule”). Under this ruling, isolated wetlands and other waters may remain protected under the Act, but only if other bases for jurisdiction are identified. In addition, isolated waters or wetlands may still be subject to regulation by state agencies. However, as stated in the EPA 2005 guidance document,

Although the SWANCC decision limits federal Clean Water Act jurisdiction over isolated, intrastate, non-navigable waters and wetlands, the Federal government remains committed to protecting all of the nation's waters.” (page 22)

Ultimately, regardless of the differences between the federal 404 permitting program and nonpoint source MMs, there are numerous opportunities to utilize the 401 certification tool through the Section 404 permitting review process to complement this particular management measure.

Task 1. Where allowed by law, establish, maintain, and strengthen regulatory 401 review and enforcement to protect wetland functions.

As an example of a linkage to protect NPS pollutant abatement and other benefits of wetlands, the State could determine during 401 certification review, that a proposed discharge or other activity in a wetland is inconsistent with state water quality standards. The state might need to address any one of a combination of factors in particular circumstances to meet the mandates of the CWA articulated in section 101(a) “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters”. As stated in the EPA 2005 document entitled “*National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution*”,

“Protection of water quality includes protection of multiple elements that together make up aquatic systems, including the aquatic life, wildlife, wetlands and other aquatic habitat, vegetation, and hydrology required to maintain the aquatic system.” (page 35).

However, an activity within a wetland could be determined to be consistent with water quality standards if existing use requirements are met and if the activity does not cause or contribute to significant degradation of the aquatic environment as defined in the CWA section 404(b)(1) guidelines.

Implementation of this task, which culminates numerous tasks provided throughout this document, would fulfill the 4.1.3 Programmatic Approaches Practice identified in the *2005 EPA Guidance*. Specifically, the practice states the following:

“Use permitting, licensing, certification, and nonregulatory approaches to protect wetland functions.” (page 32)

Task 2. The State should restrict direct conveyance of stormwater into natural wetlands.

Although wetlands are recognized for their flood control and water quality improvement functions, use of natural wetlands to reduce pollutants in stormwater and other forms of runoff can have dramatically adverse effects on wetland systems. EPA’s Office of Wetlands has several fact sheets available that provide information on protecting and

monitoring wetlands. See the EPA Office of Wetlands' website, <http://www.epa.gov/owow/wetlands/facts/contents.html> for a complete list of wetlands fact sheets and other technical information.

Several states have laws that restrict direct conveyance of stormwater into natural wetlands. For example, Washington State Department of Ecology's document entitled "*Stormwater Program Guidance Manual for the Puget Sound Basin*" (1992) established regulations restricting the placement of stormwater management ponds in wetlands. Stormwater discharges to wetlands must be treated and controlled to meet state water quality and ground water quality standards. The hydroperiod and flows of existing site conditions must also be maintained to protect characteristic uses of the wetland.

As stated in the 2005 EPA Guidance:

"In general, the following practices should be avoided:

- *Location of surface water runoff ponds or sediment retention basins in wetlands systems;*
- *Extensive dredging and plant harvesting as part of nutrient or metals management in natural wetlands.*

Some harvesting within wetlands might be necessary to control the invasion of exotic plants. Extensive harvesting of plants in a wetland for surface water runoff or nutrient management, however, could be very disruptive to the existing plant and animal communities." (page 29)

Implementation of this task would fulfill the "4.1.2 Assessment of Functions and Values Practice" cited within the 2005 EPA Guidance. More specifically, it states:

Identify existing functions of those wetlands and riparian areas with significant NPS control potential when implementing NPS management practices. Do not alter wetlands or riparian areas to improve their water quality function at the expense of their other functions.

Task 3. During the review of proposed 404 projects, encourage the applicant to obtain easements or full fee acquisition rights for wetlands and riparian areas along streams and estuaries. Freshwater wetlands should be a high priority.

Numerous federal programs, such as the USDA WRP, the EPA Clean Water State Revolving Fund (SRF), and the USFWS Partners for Wildlife and North American Waterfowl Management Plan can provide assistance for acquiring easements or full title.

In addition, areas that have been identified and prioritized for protection under the currently developing Coastal Georgia Land Conservation Initiative should be emphasized for permanent protection status.

In addition, the University of Georgia (UGA) Marine Extension Service (MAREX) recently completed a *Coastal Green Certification Program* for residential developments.

Permanent protection for wetlands and riparian areas are a component of the program. Where possible, encouraging the applicant to consider application for such a certification program during the pre-planning process will benefit the coast's natural resources, including wetlands and riparian areas.

Task 4. Manage activities that have negative impacts on wetlands and riparian areas through enhanced local coastal Georgia zoning and protective ordinances (e.g., buffer ordinances) implementation. GADNR and its partners are continuing to work with local governments to develop and implement natural resource conserving zoning and other protective ordinances.

Identify impediments to wetland protection such as excessive street standards and setback requirements that limit site-planning options and often force development into wetlands. In addition, utilize the "*Georgia Green Growth Guidelines*" (2005) to encourage more environmentally sound site design to further protect wetlands and riparian areas. Further information on the *Georgia Green Growth Guidelines* is provided in Section 10.2.

Also, the draft *Coastal Stormwater Supplement* (expected to be completed late 2008), provides both planning and green infrastructure stormwater techniques to protect wetlands and riparian areas.

In addition, participation by applicants in the UGA MAREX *Coastal Green Certification Program* would help achieve these goals.

Task 5. The State should designate uses for wetlands based on wetland functions associated with each wetland type. Such estimated uses could be verified when needed for individual applications with an assessment tool such as the Wetland Evaluation Technique, or habitat Evaluation Procedure, or region-specific evaluation methods.

According to a number of State program managers, more data on wetland functions, or "uses" can greatly assist the 401 certification process. Wetland ecosystems not only perform a wide variety of functions but do so in varying degrees. Public agencies and private applicants currently employ a number of assessment methods such as the Wetlands Evaluation technique and the Habitat Evaluation Procedure to determine what functions or uses exist in a particular wetland system. In many states, however, water quality certification reviewers lack the resources to perform an assessment of a wetland's boundaries, values and functions. Information about the location and types of wetland systems, and of the functions they may perform (such as flood storage, habitat, pollution attenuation, nutrient uptake, and sediment fixing) would aid standard writers in developing appropriate uses and criteria for wetlands, and allow 401 certification officials to conduct a more thorough review.

As detailed in Task 10 of Chapter 9, the GADNR/CRD recently initiated work on an EPA Wetland Program Development Grant that will provide an update of the NWI maps for the six coastal counties. The results of this effort will provide a tool to better delineate

wetland habitats and will greatly enhance 401 water quality certification efforts to further identify and protect coastal wetland resources.

A program that offers additional technical support for 401 certification decisions includes the State's Nongame Conservation Section (NCS) of the GADNR's Wildlife Resources Division (WRD). Replicating the former State's "natural heritage program", the current role of the NCS is to conduct research and surveys, identify critical habitat, implement species and habitat restoration programs, foster public awareness of wildlife conservation needs, and provide information on rare species and natural communities to state and federal agencies and others regarding project planning and habitat protection.

As part of a State Wildlife Grant project funded jointly by the U.S. Fish and Wildlife Service and GADNR, the collaborative partners will build upon existing mapping and data collection efforts to create a comprehensive natural resources inventory of the coastal region (11 county area) and conduct field surveys to determine areas most critical to protect and restore, as well as potential wildlife and greenspace corridors. The State Wildlife Grant project has four basic goals:

- Produce a map of important habitats in the 11-county coastal Georgia region including field-based observations and assessments of ecological integrity;
- Conduct field assessments of currently known rare species locations;
- Survey new locations for rare species not currently surveyed. The distribution and conservation status of species other than bald eagles, loggerhead sea turtles and many shorebirds are relatively unknown due to insufficient survey data;
- Utilize data acquired during the project to prioritize habitats and sites for protection.

The project will utilize the most up-to-date imagery available to produce maps and acquire ancillary data such as soils and digital terrain models. The basic mapping units for the project will be NatureServe's Ecological Systems. The entire mapping process, which is anticipated to be initiated in Winter 2008, will require two to three years.

Task 6. Serve on a committee to develop landowner guides for wetland protection and management.

Table 4-7 in the 2005 EPA document provide examples of numerous states that have developed guides.

10.1.2. Management Measure B. Restoration of Wetlands and Riparian Areas

When wetlands or riparian areas are degraded or destroyed, the valuable functions they perform are lost. States can apply this management measure to restore the full range of wetlands and riparian functions in areas where the systems have been degraded or destroyed.

The 2005 EPA Guidance defines restoration as follows:

Restoration is the return of an ecosystem to a close approximation of the conditions present prior to disturbance. In restoration, ecological damage to the resource is repaired; both the structure and functions of the ecosystem are recreated. The goal of restoration is to emulate a natural, functioning, self-regulating system that is integrated with the ecological landscape in which it occurs.

Restoration of wetlands and riparian areas is a holistic approach to water quality that addresses NPS problems while meeting the goals of the CWA to protect and restore the chemical, physical, and biological integrity of the nation's waters. The 2005 EPA Guidance states that the following steps and activities should be considered in the planning and implementation of restoration projects (pages 43-51):

- Conduct a basic site characterization;
- Identify goals for restoration;
- Identify and select restoration techniques
- Implement restoration
- Monitor for success
- Long-term management.

The specific management measure practices for restoration of wetlands and riparian areas include (pages 51-56):

- a. Plan restoration adjacent to or as part of naturally occurring aquatic ecosystems;
- b. Provide a hydrogeomorphic regime similar to that of the type of wetland or riparian area being restored;
- c. Restore native plant species and soil substrate through either natural succession or the introduction of plant and soil materials. (Examples of wetland and riparian area plant information resources is provided in Table 5-2 of the *2005 EPA Guidance and the UGA MAREX document cited below*.)

A new draft UGA MAREX document entitled *Guidelines for Coastal Georgia Riparian Buffer Restoration* (due to be finalized in late fall 2008) can serve as a resource for riparian restoration efforts within the coastal area. In addition, the UGA MAREX *Coastal Green Certification Program* provides point incentives for developers who choose to restore wetlands and/or riparian areas. Also, the UGA River Basin Center (RBC) authored several riparian buffer documents entailing Guidance and a model ordinance.

Task 7. Promote the restoration of the pre-existing functions in damaged and destroyed jurisdictional and non-jurisdictional wetlands and riparian systems in areas where the systems will serve a significant nonpoint source pollution abatement function.

Restoration of wetlands and riparian areas provides a holistic approach to water quality that addresses NPS problems while meeting the goals of the CWA to protect and restore the chemical, physical, and biological integrity of the nation's waters. Healthy wetland and riparian areas can effectively reduce pollutants such as sediment, nitrogen, and phosphorus in stormwater. Wetlands and riparian areas also help to lessen flows from storm events and protect downstream areas from impacts such as channel scour, streambank erosion, and fluctuations in temperature and chemical characteristics. However, when wetlands or riparian areas are degraded or destroyed, the valuable functions they perform are lost.

Chapter 5 of the 2005 EPA document discusses this particular EPA/NOAA Coastal NPS management measure in more detail. Steps and activities to be considered in the planning and implementation of restoration projects are also provided. Use of the additional resources provided under Task 6 may also be considered.

The Nonpoint Source Program of the GADNR/EPD recently released the *Streambank and Shoreline Stabilization Guidance* and *Stream Buffer Mitigation Guidance*. Used together, these documents will provide consistent and uniform requirements and recommendations for groups and individuals planning to implement streambank or shoreline stabilization. The stabilization document discusses preferred, acceptable and discouraged methods of streambank and shoreline stabilization. Stabilization methods in the third (or "discouraged") level will require additional mitigation in the form of additional nonpoint source protection and vegetative controls.

In March 2004, the ACOE Savannah District released a document entitled *Standard Operating Procedure Compensatory Mitigation: Wetlands, Open Water and Streams* (available at their website: www.sas.usace.army.mil/permit.htm). This Standard Operating Procedure (SOP) is applicable to regulatory actions requiring compensatory mitigation for adverse impacts to 10 acres or less of wetland or other open waters, and/or 5,000 linear feet or less of intermittent and/or perennial streams. A key element of the SOP is the establishment of a method for calculating mitigation credits.

Task 8. In concert with Task 7, coordinate with and develop a document with Savannah District COE, USFWS, EPA, and NMFS, GADNR/WRD and Fisheries on stream restoration in coastal Georgia.

The North Carolina Department of Environment and Natural Resources, Division of Water Quality and the Wilmington District of the COE developed a document (December 1, 2005) entitled "*Information Regarding Stream Restoration in the Outer Coastal Plain of North Carolina*." The intent of the document is to provide information to compensatory mitigation providers for use when planning or evaluating potential stream mitigation projects in the outer coastal plain of North Carolina. The document complements their April 2003 "*Stream Mitigation Guidelines*" prepared by the COE Wilmington District, EPA, North Carolina Division of Water Quality, and North Carolina Wildlife Resources Commission.

As stated in their document,

“Many outer coastal plain headwater systems have been channelized or ditched in the past, making it difficult to determine whether a true intermittent or perennial stream was historically present. These existing “man-made” channels have, in most cases, intercepted surface runoff and/or groundwater to the extent that they now possess intermittent or perennial flow and exhibit functions commonly associated with natural streams. These systems are often considered jurisdictional waters of the US and, in many cases, are classified as “streams”. Permits to impact these systems usually require some form of stream mitigation as compensation.

There is an increasing need for compensatory stream mitigation in the outer coastal plain of North Carolina. Many sites selected to provide compensatory mitigation are channelized or ditched riparian headwater systems. There is debate over the necessity and/or appropriateness of traditional channel design techniques in these systems. Typically, intermittent and perennial streams with well-defined bed and bank characteristics are associated with specific soil series and are present in those unaltered riparian headwater systems having relatively large watersheds draining into a well-defined topographic feature. Here, natural channel design techniques may be appropriate.”

An interagency team would benefit in considering the development of a similar document for coastal Georgia. The coastal 401 certification review process could then utilize the document during stream mitigation review.

Task 9. During review of proposed 404 projects, identify opportunities and encourage applicants to set aside and restore wetlands and riparian areas.

A program that offers additional technical support for 401 certification decisions includes the State’s Nongame Conservation Section (NCS) of the GADNR’s Wildlife Resources Division (WRD).

Areas that have been identified and prioritized for protection under the currently developing GADNR/WRD NCS coastal assessment and designation of protected areas and Coastal Georgia Land Conservation Initiative should be emphasized for restoration status, where applicable. Apply the restoration steps and management measure practices as stated above from the 2005 EPA Guidance.

In addition, where applicable, encourage Section 404 applicants to participate in the UGA MAREX Coastal Green Certification Program where they can generate points for restoration towards the larger certification point total.

Implementation of this task would fulfill the 4.1.3 Programmatic Approaches Practice cited above.

Task 10. Where appropriate during 401 certification review, utilize mitigation banking opportunities as a means of achieving environmentally and economically sound mitigation for unavoidable and minimized impacts to waters of the State, including wetlands.

Mitigation banking is defined as:

Wetland restoration, creation, enhancement, and, in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for unavoidable wetland losses in advance of development actions, when such compensation cannot be achieved at the development site or would not be as environmentally beneficial (60 FR. 58605, Nov. 28, 1995).

Mitigation banking occurs in the context of the wetlands programs established under the CWA section 404, the Rivers and Harbors Act section 10, and the Swampbuster Program under the Food Security Act. Consequently, mitigation banking is to provide for the replacement of the physical, chemical, and biological functions of wetlands that are lost as a result of authorized impacts.

A 1990 memorandum of agreement (MOA) signed by all agencies with regulatory responsibilities (EPA and ACOE) outlines a sequence of three steps that must be considered when evaluating an application for a section 404 permit:

- (a) AVOID - adverse impacts on wetlands should be avoided when possible;
- (b) MINIMIZE - when they cannot be avoided, adverse impacts should be minimized;
- (c) MITIGATE - where impacts still occur, compensatory mitigation is required.

The federal mitigation banking policy and its implementation are described in the *Federal Guidance for the Establishment, Use and Operation of Mitigation Banks* (60 FR 58605, Nov. 28, 1995). In December, 2002, the ACOE in consultation with the EPA, USDA, U.S. Department of Interior (DOI), Federal Highway Administration (FHWA), and NOAA reevaluated wetlands mitigation guidance and reissued a Regulatory Guidance Letter (RGL 02-2): *Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899* (ACOE, 2002). This guidance applies to all new compensatory mitigation proposals (which may be required to replace aquatic resource functions, including wetlands that are unavoidable lost or adversely affected by authorized activities) associated with a ACOE-issued permits. The guidance instructs the ACOE Districts to use watershed and ecosystem approaches when determining compensatory mitigation approaches, consider the resource needs of the impacted watersheds, and consider the resource needs of neighboring watersheds. For more details see RGL 02-2 (ACOE, 2002) and the *National Wetlands Mitigation Action Plan* (ACOE, 2002).

The Savannah District of the ACOE, in coordination with the GADNR, USFWS, EPA, and National Marine Fisheries Service (NMFS) developed a working draft entitled

“Guidelines on the Establishment, Operation and Use of Wetland and Stream Mitigation Banks in Georgia” (available on the ACOE website: www.sas.usace.army.mil/bankguid2.htm). The State’s 401 Coordinator helped develop these guidelines and utilizes these during his 404 mitigation proposal reviews.

Task 11. Once established, the Coastal 401 staff should participate and serve on the Savannah District’s COE Mitigation Banking Interagency Review Team.

The State’s 401 Coordinator currently serves on the Interagency Review Team for the Savannah District’s COE mitigation proposals. Additional representation and coordination by the Coastal 401 staff person with the Interagency Review Team is essential.

10.1.3. Management Measure C. Vegetated Treatment Systems

This management measure is intended to be applied in cases where engineered systems of wetlands or vegetated treatment systems can treat NPS pollution. Vegetated treatment systems (which includes vegetated filter strips (VFS) and constructed wetlands) are located in upland regions and protect wetlands and aquatic resources from NPS pollution. The systems need to be properly designed, correctly installed, and diligently maintained to function properly.

The following are nonpoint pollution sources for which VFS might provide some nutrient-removal capability:

- Urban development. VFS filter and remove sediment, organic material, and trace metals. According to the Metropolitan Washington Council of Governments, VFS have a low to moderate ability to remove dissolved pollutants in urban runoff and have higher efficiency for removal of particulate pollutants than for removal of soluble pollutants.
- Cropland. The primary function of VFS is to filter sediment from soil erosion and sediment-borne nutrients. However, VFS should not be relied on as the sole or primary means of preventing nutrient removal from cropland

Task 12. Where appropriate, promote the use of engineered Vegetated Treatment Systems (VTSs) such as constructed wetlands or vegetated filter strips (VFSs) where these systems will serve a significant nonpoint source pollution abatement function and prevent adverse impacts on water quality and wetland function that affect NPS pollution abatement. Recommend the construction and maintenance of VFS in upland areas adjacent to water bodies that may be subject to suspended solids and/or nutrient runoff.

The purpose of VFS and constructed wetlands is to remove, to the extent practicable, excessive levels of NPS pollutants and to minimize the impacts of hydrologic changes. Both VFS and constructed wetlands can function to reduce levels of pollutants in runoff or attenuate runoff volume before the runoff enters a natural wetland or riparian area or

another water body. However, these systems need to be properly designed, correctly installed, and diligently maintained to function properly.

More detailed information on these systems is provided in Chapter 6 of the 2005 EPA document.

VFS have been successfully used in a variety of situations where some sort of BMP was needed to treat surface water runoff. Typical locations of VFS have included the following (*2005 EPA Guidance*):

- Adjacent to wetlands, streams, ponds, or lakes
- Along roadways, parking lots, or other impervious areas
- In areas requiring filter strips as part of a waste management system
- On forested land
- Below cropland or other fields
- Above conservation practices such as terraces or diversions
- Between fields
- Alternating between wider bands of row crops.

Table 6-2 of the *2005 EPA Guidance* provides effectiveness of constructed wetlands for NPS pollutant removal at several locations in the U.S.

Several key local elements should be considered in the design of VFS: type of pollutant, slope, length, climate, plant species, detention time, monitoring and maintenance.

The Interagency Workgroup on Constructed Wetlands has issued a guidance document entitled *Guiding Principles for Constructed Treatment Wetlands: Providing Water Quality and Wildlife Habitat* (EPA, 2000). The workgroup suggested considerations for siting constructed wetlands. Both the considerations for siting and design considerations are outlined on pages 72-77 of the *2005 EPA Guidance*.

10.2 Urban New and Existing Development Management Measures

The USEPA recently released a document entitled *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (document # EPA-841-B-05-004, no date provided) provides the best available, most economically achievable means of managing urban runoff and reducing NPS pollution of surface and ground waters from urban areas. The document describes how to develop a comprehensive runoff management program that deals with all phases of development – from predevelopment watershed planning and site design, through the construction phase of development, to the operation and maintenance of structural controls. Information regarding other situations include retrofitting existing development, implementing nonstructural controls, and reevaluating the runoff management program. Lastly, the information provided includes guidance for all urban areas (developed or developing), not just those covered by the NPDES phase II requirements. Some of the key concepts addressed throughout the EPA urban document include:

- Watershed approach
- Stream network (watershed, local, and national-level scales)
- Impervious and pervious surfaces in the urban landscape
- Impervious cover model (subwatersheds as the primary management unit, classification levels)
- Changes in the watershed due to increased imperviousness
- Nonpoint source pollutants and their impacts (e.g., sediment, nutrients, oxygen-demanding substances, pathogens, road salts, hydrocarbons, heavy metals, toxic pollutants, temperature)
- Nonpoint source pollutant loading and
- Other impacts of urban runoff

The twelve specific management measures are provided in Table 3. Four major runoff management themes dominate the management practices presented in the guidance document:

- Minimize the amount of impervious land coverage and disconnect impervious areas;
- Promote infiltration;
- Prevent polluted runoff by not allowing pollutants and runoff to mix;
- Remove pollutants from runoff before allowing it to flow into natural receiving waters.

The management practices were grouped into two basic categories:

- *Nonstructural practices* prevent or reduce urban runoff problems in receiving waters by reducing potential pollutants or managing runoff at the source. These practices can take the form of regulatory controls (e.g., codes, ordinances, regulations, standards, or rules) or voluntary pollution prevention practices. Nonstructural controls can be further subdivided into
 - (a) *Land use practices* aimed at reducing impacts on receiving waters resulting from runoff from new development by controlling or preventing land use in sensitive areas of the watershed. They can also be used to minimize total land used for development while accommodating growth;
 - (b) *Source control practices* aimed at preventing or reducing potential pollutants at their source before they come into contact with runoff or aquifers. Some source controls are associated with new development. Others are implemented after development occurs and include pollution prevention activities that attempt to modify aspects of human behavior, such as educating citizens about the proper disposal of used motor oil and application of lawn fertilizers and pesticides.

- *Structural practices* are engineered to manage or alter the flow, velocity, duration, and other characteristics of runoff by physical means. In doing so they can control storm water volume and peak discharge rates and, in some cases, improve water quality. They can also have ancillary benefits such as reducing downstream erosion, providing flood control, and promoting ground water recharge.

Table 3. MANAGEMENT MEASURES FOR URBAN AREAS

<u>II. Urban Runoff</u>	<p>(1) By design or performance:</p> <p>(a) After construction has been completed and the site is permanently stabilized, reduce the average annual total suspended solids (TSS) loadings by 80 percent. For the purposes of this measure, an 80 percent TSS reduction is to be determined on an average annual basis,* or</p> <p>(b) Reduce the postdevelopment loadings of TSS so that the average annual TSS loadings are no greater than predevelopment loadings, and</p> <p>(2) To the extent practicable, maintain postdevelopment peak runoff rate and average volume at levels that are similar to predevelopment levels.</p> <p>Sound watershed management requires that both structural and nonstructural measures be employed to mitigate the adverse impacts of storm water. Nonstructural Management Measures II.B and II.C can be effectively used in conjunction with Management Measure II.A to reduce both the short- and long-term costs of meeting the treatment goals of this management measure.</p> <p>*Based on the average annual TSS loadings from all storms less than or equal to the 2-year/24-hour storm. TSS loadings from storms greater than the 2-year/24-hour storm are not expected to be included in the calculation of the average annual TSS loadings.</p>
A. New Development	
B. Watershed Protection	<p>Develop a watershed protection program to:</p> <p>(1) Avoid conversion, to the extent practicable, of areas that are particularly susceptible to erosion and sediment loss;</p> <p>(2) Preserve areas that provide important water quality benefits and/or are necessary to maintain riparian and aquatic biota; and</p> <p>(3) Site development, including roads, highways and bridges, to protect to the extent practicable the natural integrity of waterbodies and natural drainage systems.</p>
C. Site Development	<p>Plan, design, and develop sites to:</p> <p>(1) Protect areas that provide important water quality benefits and/or are particularly susceptible to erosion and sediment loss;</p> <p>(2) Limit increases of impervious areas, except where necessary;</p> <p>(3) Limit land disturbance activities such as clearing and grading, and cut and fill to reduce erosion and sediment loss; and</p> <p>(4) Limit disturbance of natural drainage features and vegetation.</p>
<u>III. Construction Activities</u>	<p>(1) Reduce erosion and, to the extent practicable, retain sediment onsite during and after construction, and</p> <p>(2) Prior to land disturbance, prepare and implement an approved erosion and sediment control plan or similar administrative document that contains erosion and sediment control provisions.</p>
A. Construction Site Erosion and Sediment Control Management Measure	
B. Construction Site Chemical Control	<p>(1) Limit application, generation, and migration of toxic substances;</p> <p>(2) Ensure the proper storage and disposal of toxic materials; and</p> <p>(3) Apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters.</p>
<u>IV. Existing Development</u>	<p>Develop and implement watershed management programs to reduce runoff pollutant concentrations and volumes from existing development:</p>

A. Existing Development	<p>(1) Identify priority local and/or regional watershed pollutant reduction opportunities, e.g., improvements to existing urban runoff control structures;</p> <p>(2) Contain a schedule for implementing appropriate controls;</p> <p>(3) Limit destruction of natural conveyance systems; and</p> <p>(4) Where appropriate, preserve, enhance, or establish buffers along surface waterbodies and their tributaries.</p>
<p><u>V. Onsite Disposal Systems</u></p> <p>A. New Onsite Disposal Systems</p>	<p>(1) Ensure that new Onsite Disposal Systems (OSDS) are located, designed, installed, operated, inspected, and maintained to prevent the discharge of pollutants to the surface of the ground and to the extent practicable reduce the discharge of pollutants into ground waters that are closely hydrologically connected to surface waters. Where necessary to meet these objectives: (a) discourage the installation of garbage disposals to reduce hydraulic and nutrient loadings; and (b) where low-volume plumbing fixtures have not been installed in new developments or redevelopments, reduce total hydraulic loadings to the OSDS by 25 percent. Implement OSDS inspection schedules for preconstruction, construction, and postconstruction.</p> <p>(2) Direct placement of OSDS away from unsuitable areas. Where OSDS placement in unsuitable areas is not practicable, ensure that the OSDS is designed or sited at a density so as not to adversely affect surface waters or ground water that is closely hydrologically connected to surface water. Unsuitable areas include, but are not limited to, areas with poorly or excessively drained soils; areas with shallow water tables or areas with high seasonable water tables; areas overlaying fractured bedrock that drain directly to ground water; areas within floodplains; or areas where nutrient and/or pathogen concentrations in the effluent cannot be sufficiently treated or reduced before the effluent reaches sensitive waterbodies;</p> <p>(3) Establish protective setbacks from surface waters, wetlands, and floodplains for conventional as well as alternative OSDS. The lateral setbacks should be based on soil type, slope, hydrologic factors, and type of OSDS. Where uniform protective setbacks cannot be achieved, site development with OSDS so as not to adversely affect waterbodies and/or contribute to a public health nuisance;</p> <p>(4) Establish protective separation distances between OSDS system components and groundwater which is closely hydrologically connected to surface waters. The separation distances should be based on soil type, distance to ground water, hydrologic factors, and type of OSDS;</p> <p>(5) Where conditions indicate that nitrogen-limited surface waters may be adversely affected by excess nitrogen loadings from ground water, require the installation of OSDS that reduce total nitrogen loadings by 50 percent to ground water that is closely hydrologically connected to surface water.</p>
<p>B. Operating Onsite Disposal Systems</p>	<p>(1) Establish and implement policies and systems to ensure that existing OSDS are operated and maintained to prevent the discharge of pollutants to the surface of the ground and to the extent practicable reduce the discharge of pollutants into ground waters that are closely hydrologically connected to surface waters. Where necessary to meet these objectives, encourage the reduced use of garbage disposals, encourage the use of low-volume plumbing fixtures, and reduce total phosphorus loadings to the OSDS by 15 percent (if the use of low-level phosphate detergents has not been required or widely adopted by OSDS users). Establish and implement policies that require an OSDS to be repaired, replaced, or modified where the OSDS fails, or threatens or impairs surface waters;</p> <p>(2) Inspect OSDS at a frequency adequate to ascertain whether OSDS are failing;</p> <p>(3) Consider replacing or upgrading OSDS to treat influent so that total nitrogen loadings in the effluent are reduced by 50 percent. This provision applies only: (a) where conditions indicate that nitrogen-limited surface waters may be adversely affected by significant ground water nitrogen loadings from OSDS,</p>

	and (b) where nitrogen loadings from OSDS are delivered to ground water that is closely hydrologically connected to surface water.
<u>VI. Pollution Prevention</u> A. Pollution Prevention	Implement pollution prevention and education programs to reduce nonpoint source pollutants generated from the following activities, where applicable: <ul style="list-style-type: none"> • The improper storage, use, and disposal of household hazardous chemicals, including automobile fluids, pesticides, paints, solvents, etc.; • Lawn and garden activities, including the application and disposal of lawn and garden care products, and the improper disposal of leaves and yard trimmings; • Turf management on golf courses, parks, and recreational areas; • Improper operation and maintenance of onsite disposal systems; • Discharge of pollutants into storm drains including floatables, waste oil, and litter; • Commercial activities including parking lots, gas stations, and other entities not under NPDES purview; and • Improper disposal of pet excrement.
<u>VII. Roads, Highways, and Bridges</u> A. Planning, Siting, and Developing Roads and Highways	Plan, site and develop roads and highways to: (1)Protect areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss; (2)Limit land disturbance such as clearing and grading and cut and fill to reduce erosion and sediment loss; and (3)Limit disturbance of natural drainage features and vegetation.
B. Bridges	Site, design, and maintain bridge structures so that sensitive and valuable aquatic ecosystems and areas providing important water quality benefits are protected from adverse effects.
C. Construction Projects	(1) Reduce erosion and, to the extent practicable, retain sediment onsite during and after construction and (2) Prior to land disturbance, prepare and implement an approved erosion control plan or similar administrative document that contains erosion and sediment control provision.
D. Construction Site Chemical Control	(1) Limit the application, generation, and migration of toxic substances; (2) Ensure the proper storage and disposal of toxic materials; and (3) Apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water.
E. Operation and Maintenance	Incorporate pollution prevention procedures into the operation and maintenance of roads, highways, and bridges to reduce pollutant loadings to surface waters.
F. Road, Highway, and Bridge Runoff Systems	Develop and implement runoff management systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters. (1)Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures); and (2) Establish schedules for implementing appropriate controls.

10.2.1 Management Measure for Urban Runoff. A. New Development

The goals of the new development runoff treatment management measure are to:

- Retain the predevelopment or pre-disturbance hydrological conditions of both surface and ground water;

- Remove suspended solids and associated pollutants entrained in runoff that result from activities occurring during and after development;
- Decrease the erosive potential of increased runoff volumes and velocities associated with development-induced changes in hydrology;
- Preserve natural systems, including in-stream habitat, riparian areas, and wetlands; and
- Reduce the thermal impacts that result from impervious surfaces and treatment devices with large amounts of surface exposed to sunlight such as wet ponds.

Total suspended solids (TSS) is a measure of the concentrations of sediment and other solid particles suspended in the water column of a stream, lake, or other water source. TSS is an important parameter because it quantifies the amount of sediment entrained in runoff. This information can be used to link sources of sediments to the resulting sedimentation in a stream, lake, wetland, or other water resources. TSS is also an indirect measure of other pollutants carried by runoff, because nutrients (phosphorus), metals, and organic compounds are typically attached to sediment particles.

Recently, EPA's Office of Water released a March 5, 2007 memorandum to support "Using Green Infrastructure to Protect Water Quality in Stormwater, CSO, Nonpoint Source and other Water Programs". The memorandum stated that "*Green infrastructure can be both cost effective and an environmentally preferable approach to reduce stormwater and other excess flows...*" and "*Green infrastructure approaches essentially infiltrate, evapotranspire or reuse stormwater, with significant utilization of soils and vegetation rather than traditional hardscape collection, conveyance and storage structures. Common green infrastructure approaches include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, vegetated median strips, reforestation, and protection and enhancement of riparian buffers and floodplains.*"

Task 13 provided below captures the direction provided in the EPA March 2007 memorandum which fulfills the management measure discussed above.

Task 13. During review of proposed Section 404 permits, condition 401 certifications to implement coastal stormwater management post-construction BMPs consistent with the Georgia Stormwater Manual as amended for coastal Georgia ("Coastal Stormwater Supplement").

Several key sources for innovative stormwater management for coastal Georgia exist or are currently being developed and include:

- Coastal Georgia Green Growth Guidelines (2006)
- Development of Coastal Stormwater Supplement to the Georgia Stormwater Management Manual (expected to be finalized late 2008)
- Georgia Stormwater Management Manuals (Volumes I and II)
- Stormwater Coastal Model Ordinance of coastal counties with new development management measures (expected to be finalized late 2008)

- Stormwater Utility Handbook for coastal local governments (expected to be finalized late 2008).

Coastal Georgia Green Growth Guidelines

Coastal Georgia's Green Growth Guidelines's (G3) Chapter 3 "Low Impact Development and Stormwater Management" discusses a range of multi-functional stormwater drainage techniques commonly termed as "Low Impact Development (LID)". The eight stormwater management techniques provided are designed to replicate pre-development hydrologic functions by encouraging natural processes that detain and filter pollutants from stormwater runoff. Section 3.3 of the G3 discusses site-specific practices that integrate green space, native landscaping, and natural hydrologic functions to capture and treat runoff from developed land and include the following:

- Alternatively designed stormwater ponds
- Stormwater wetlands
- Bioretention areas
- Infiltration devices
- Filtration devices
- Green roofs
- Permeable paving
- Oil/water separators.

Coastal Georgia Stormwater Supplement

The Center for Watershed Protection (CWP) is currently working with the Chatham County-Savannah Metropolitan Planning Commission (MPC) for the GADNR to develop a Coastal Stormwater Supplement to the Georgia Stormwater Management Manual (GSMM). The supplement is anticipated to be completed in late 2008. The supplement will stress the need for comprehensive stormwater management and will provide technical guidance on the Green Infrastructure (GI) approach to stormwater management and the stormwater BMP design adaptations that are necessary to address the physiographic features and water quality concerns of the coast. It will also provide guidance to coastal communities to help them develop local stormwater management programs.

The stormwater management approach for the coastal zone will not primarily rely upon structural BMPs to mitigate the impacts of urbanization. The approach used in the coastal zone will integrate the use of better site planning and design, small-scale, distributed practices and structural stormwater BMPs to address the impacts of urbanization. The recommended stormwater management approach includes:

- Developing the land in a way that minimizes its impact on the watershed and reduces both the amount of runoff and pollutants generated
- Using better site design and low impact development practices to treat the quality and quantity of stormwater runoff at its source

- Using structural stormwater BMPs to control stormwater runoff volumes to prevent downstream flooding and streambank channel erosion
- Using structural stormwater BMPs to treat stormwater runoff before it is discharged to a receiving waterbody
- Maintaining groundwater recharge through the use of better site design techniques, low impact development practices and stormwater BMPs
- Implementing pollution prevention practices to prevent stormwater from becoming polluted.

Using the Green Infrastructure Approach to Stormwater Management

An innovative stormwater management approach that emphasizes the prevention and mitigation of impacts at the site level through the use of Better Site Design (BSD) techniques and LID practices can be used to reduce reliance upon structural stormwater BMPs that may not adequately protect the aquatic resources of the coastal zone. Although the terminology related to these innovative stormwater practices can be somewhat confusing, the terms BSD and LID are typically used to define two complementary, but distinct runoff reduction strategies:

- ***Better Site Design*** - The term BSD is commonly used to describe non-structural practices employed during site planning and design to minimize the creation of new impervious cover, prevent the compaction of pervious cover and conserve natural areas that are critical in maintaining predevelopment hydrology (CWP, 1998b).
- ***Low Impact Development*** - The term LID is typically used to refer to the systematic application of engineered small-scale, distributed practices to replicate pre-development hydrologic functions. Together, these complementary runoff reduction strategies form the Green Infrastructure (GI) approach (Grumbles, 2007) to stormwater management.

This approach that uses a combination of BSD techniques and LID practices can be referred to as the GI approach to stormwater management.

Table 4 lists a number of site planning and design techniques and small-scale, distributed practices that are part of the GI approach to stormwater management. These techniques and practices minimize the impacts of development on-site by reducing runoff, maintaining groundwater recharge, preserving baseflows and protecting the integrity of downstream aquatic resources (Grumbles, 2007).

Table 4: The Green Infrastructure Approach: Better Site Design Techniques and Low Impact Development Practices	
Site Planning & Design Techniques	Small-Scale Distributed Practices
Preservation of Undisturbed Natural Areas Preservation of Riparian Buffers & Floodplains Preservation of Steep Slopes Preservation of Porous and Erodible Soils Preservation of Existing Topography Avoidance of Sensitive Areas Reduced Clearing and Grading Limits Open Space Development Reduced Roadway Lengths and Widths Reduced Building Footprints Reduced Parking Lot Footprints Reduced Setbacks and Frontages Use of Fewer or Alternative Cul-de-Sacs Use of Buffers for Stormwater Treatment Use of Natural Drainageways Site Reforestation Site Revegetation	Soil Amendments Downspout Disconnection Impervious Cover Disconnection Rainwater Harvesting Rain Gardens Bioretention Areas Dry Wells French Drains Green Rooftops Porous Pavement Stormwater Planters Vegetated Filter Strips Vegetated Channels

Source: Center for Watershed Protection

The site planning and design techniques and small-scale, distributed practices included in the GI approach can provide significant runoff reduction benefits, which reduces the size and cost of drainage infrastructure and structural stormwater BMPs.

BMPs used in upper watersheds appear to have a reduced rate of pollutant removal efficiency when applied on the coast, suggesting that BMP design must be adapted to the physiographic features and water quality concerns of the coastal zone. These adaptations will help ensure that, when stormwater BMPs are used to mitigate the impacts of development in the coastal zone, they will perform effectively and will help protect coastal resources.

- **Water Quality Concerns** - Because of the significant impacts that they can have upon coastal aquatic resources, total suspended solids, nitrogen and bacteria are the primary pollutants of concern in the coastal zone. Although the stormwater BMPs provide high removal of total suspended solids (e.g. at least 80% removal), the National Database indicates that they provide only moderate removal of nitrogen and bacteria (e.g. 30% to 50% removal). By including design features and treatment mechanisms that promote the removal of these pollutants, BMP design can be modified to enhance their removal.

The recommended coastal stormwater management approach includes:

- The use of green infrastructure (e.g. better site design and low impact development) to reduce and treat the quality and quantity of stormwater runoff at its source

- The use of stormwater BMPs to provide treatment and control of stormwater runoff
- The use of green infrastructure and stormwater BMPs to maintain groundwater recharge.

The specific site design approach for the coastal zone is provided in Table 5.

Table 5: A Site Design Approach for the Coastal Zone	
Step	Description
Step 1: Identify Sensitive Areas on the Site	Site inventory to identify up-front the areas that can be protected and/or restored, to include: rivers and streams, estuaries, tidal creeks, fresh and saltwater marshes and wetlands, valuable woodlands, natural drainage features, hydrologically-functional soils, critical slopes, and groundwater recharge areas.
Step 2: Identify Critical Issues and Site Constraints	As documented in this memorandum, identify the site characteristics that will include stormwater design: terrain, shallow groundwater, poorly and excessively drained soils, tidal interaction. Also, identify other factors that will affect the site, such as downstream ditches and channels, water quality concerns (TMDL), and regulatory issues (freshwater wetlands and coastal marshlands regulations).
Step 3: Identify Green Infrastructure (GI) Techniques Applicable to the Site	Based on Steps 1 and 2, incorporate GI site planning and distributed practice techniques, and apply GI Credits to reduce the number, size, and/or capacity of structural BMPs.
Step 4: Select Appropriate Structural BMPs	After GI Credits are applied, calculate the remaining recharge, water quality, channel protection, and flood control requirements, and select and design appropriate BMPs based on guidance in the Coastal Stormwater Supplement. Use BMPs that use vegetation and landscaping as part of the treatment process.

Source: Center for Watershed Protection

A section of the CSS will also include information on credits that can be used to provide developers and site designers with an incentive to use Green Infrastructure techniques and practices that can reduce both the amount of runoff and pollutants generated at a development site.

A section of the supplement will provide guidance on implementing and administering a local stormwater management program that is consistent with the contents of the GSMM and CSS. Included in the guidance will be information about developing a stormwater management ordinance and the policies and procedures that need to be in place to administer a local stormwater program. This section will also provide information on the plan review process and stormwater BMP inspection and maintenance programs.

Model Stormwater Management Ordinance

The technical appendices of the Coastal Stormwater Supplement will include a corollary model stormwater management ordinance for the communities of the coastal zone and

monitoring protocol that can be used to help define the pollutant removal of coastal stormwater BMPs.

Implementation of this task would also fulfill the Wetlands and Riparian Areas 4.1.3 Programmatic Approaches Practice cited above.

10.2.2 Management Measure for Urban Runoff. B. Site Development

The goals of this management measure are to reduce the generation of nonpoint source pollution, maintain predevelopment hydrology, and mitigate the impacts of urban runoff and associated pollutants from all site development. This management measure is intended to apply to individual sites at the catchment level rather than larger watersheds or regional drainage basins.

Programs designed to control increased runoff and nonpoint source pollution resulting from site development should include:

- Predevelopment planning and review processes to ensure watershed/subwatershed and site-level natural resource and performance goals are achieved;
- Guidance on assessing and designing sites to maintain predevelopment site hydrology;
- Appropriate pollution prevention practices to be incorporated into site development and use;
- Site plan review and conditional approval processes to ensure the preservation of environmentally sensitive areas and areas necessary for maintaining natural hydrology and water quality; and
- Requirements for erosion and sediment control plan review and approval prior to issuance of appropriate development permits.

The use of site planning and evaluation can significantly reduce the size of controls required to retain runoff and sediment on-site. Long-term maintenance burdens can also be reduced. Good site planning can attenuate runoff from development and can improve the effectiveness of the conveyance and treatment components of an urban runoff management system.

Task 14. Where possible during 401 certification review, encourage the applicant to implement the *Georgia Green Growth Guidelines* and/or the *UGA MAREX Coastal Green Certification Program's* procedure and criteria.

In addition to Task 13 mentioned above, the Georgia Green Growth Guidelines (GGG) main objectives are to:

- demonstrates how site fingerprinting and sensitive land planning can identify and protect natural resources;

- provide developers with instructions on how to build with minimal impact to the environment;
- compare low impact and conventional residential subdivision designs to show economic and environmental benefits of LID;
- demonstrate alternative stormwater drainage solutions that protect the quality of receiving waterbodies (see Task 11 above);
- introduce various soft engineering techniques used to protect and stabilize coastal stream banks from erosion.

Chapter 1 of the GGG provides an example of applying a low impact land planning process called “site fingerprinting” to an undeveloped tract of land in coastal Georgia. Chapter 2 utilizes the low impact design principles to create two conceptual development plans for the tract (“community preserve” and “village”). The chapter also compares the two land plans to conventional development with respect to economic, environmental, and social benefits. Chapter 3 explores a range of multi-functional stormwater drainage techniques (see Task 11 above). Chapter 4 demonstrates bio-engineered solutions for streambank stabilization, especially steep, sandy bluffs along coastal streams that are particularly susceptible to wind and water erosion.

In addition, encourage the applicant to consider participating in the UGA MAREX *Coastal Green Certification Program* (during pre-planning). The UGA program implemented components of the GGG into the certification program.

Task 15. Where possible during 401 certification review and the applicant’s site development process, encourage the applicant to incorporate site development objectives as described in the *Georgia Green Growth Guidelines, Georgia Stormwater Supplement and ordinance, UGA MAREX Green Coasts Certification Program, and the EPA 2005 Urban Guidance*.

As stated in the *EPA 2005 Urban Guidance*, the following objectives should be incorporated into the site development process:

- During site development, disturb only the smallest area necessary to perform current activities to reduce erosion and off-site transport of sediment;
- Avoid disturbance of unstable soils or soils particularly susceptible to erosion and sediment loss
- Favor sites where development will conserve natural drainage areas and sensitive environmental features, and minimize erosion, sediment loss, and soil compaction;
- Revegetate the site as soon as possible after disturbance, preferably with native vegetation;
- Protect and retain existing vegetation to decrease concentrated flows, maintain site hydrology, and control erosion;
- Minimize imperviousness to the extent practicable;
- Develop and implement inspection and maintenance procedures to ensure that landscapes are maintained to avoid water quality impacts;

- Use natural hydrology as a design element, and avoid alteration, modification, or destruction of natural drainage features;
- Design sites to preserve vegetated or natural buffers adjacent to receiving waters;
- Reforest areas within the same watershed in proportion to the acreage cleared of trees;
- Use porous pavements for areas of infrequent use.

The majority of these components are addressed in the Coastal Stormwater Supplement (CSS). In addition, applicant participation in the UGA MAREX *Coastal Green Certification Program* and the UGA MAREX *CoastScapes* Conservation Landscaping Program (which is also integrated into the Certification Program) helps achieve these objectives as well. In addition, many of these components are referenced in the GGG.

Task 16. During the 401 certification review process, coordinate closely with EPD’s erosion and sedimentation staff to ensure adequate implementation of E&S practices in the proposed federal permitted or licensed project.

As mentioned in Chapter 6, the GADNR/EPD will not issue a water quality 401 certification for projects encroaching into stream buffers unless a variance has been issued by EPD E&S staff. Therefore, close coordination with E&S staff is essential during the 401 review process.

The State’s E&S Act requires permits for land disturbing activities and provides for authority for local governments to issue permits according to local ordinances. The E&S Act requires EPD to approve and periodically review local erosion and sediment control programs. For exempt activities, the Act now requires new construction practices to comply with BMPs contained in the “*Manual for Erosion and Sediment Control in Georgia*”, which meets the MMs addressed in this section of Chapter 10. The Manual includes requirements for a Land Disturbing Activity Plan, an Erosion and Sediment Control Plan, and provides a Model Soil Erosion and Sedimentation Control Ordinance. The Land Disturbing Activity Plan requires natural vegetative buffers of 25 feet measured from the stream banks, minimizing disturbed areas, and stabilizing disturbed areas.

In addition, in August 2008, the GADNR/EPD released a General Permit No. GAR10003 entitled “Authorization to Discharge Under The National Pollutant Discharge Elimination System Storm Water Discharges Associated With Construction Activity For Common Developments”. Part IV of the Permit entitled “Erosion, Sedimentation and Pollution Control Plan” includes construction activity restrictions based on buffers, site description, erosion and sediment controls, stormwater management (including green infrastructure approaches as provided in the Coastal Stormwater Supplement and GGG), inspections, maintenance, and sampling and reporting requirements. Close review and coordination of these NPDES permits by the 401 staff with coastal E&S staff will be imperative.

In general, requiring implementation of erosion and sedimentation control practices at construction sites is an example of a good programmatic approach for reducing sediment

and other pollutant loads to wetlands. Such erosion and sedimentation control programs should provide a good source of design guidelines and make sure that effective sediment control practices are being implemented, based on good design criteria, monitoring of completed installations, good maintenance procedures, and monitoring follow-up to ensure that maintenance is being performed.

10.2.3.Management Measures for Urban Roads, Highways and Bridges

The use of structural and nonstructural runoff control practices during the planning, design, operation, and maintenance of highways and bridges can significantly mitigate the adverse effects of runoff. Specifically, by using environmentally sensitive highway and bridge designs and implementing proper operation and maintenance practices, highway authorities can reduce both the volume and concentration of contaminants generated by motor vehicle traffic and maintenance and repair operations. In addition, controls can be used to store and treat contaminants so that pollutant loadings can be further reduced or prevented from entering sensitive ecosystems.

Section 7.3 entitled “Management Practices of the 2005 EPA Urban Guidance provide management practices to achieve this MM and include the following:

- Site planning and design practices
- Soil bioengineering and other runoff controls for highways
- Structural runoff controls for bridges
- Bridge operation and maintenance controls
- Nonstructural runoff control practices.

Some of these practices are implemented in the *Coastal Stormwater Supplement* and the *Green Growth Guidelines*. Applicants that choose to participate in the UGA MAREX *Coastal Green Certification Program* and/or *CoastScapes* will also be required or encouraged to implement many of these practices.

Task 17. In concert with Chapter 9’s Task 7, seek to obtain and utilize Department of Transportation (DOT) funds to provide 401 certification review of GADOT projects.

A form of leveraging administrative resources to fund additional coastal 401 certification staff persons includes utilizing Department of Transportation (DOT) resources. The state of North Carolina actively funds 13 staff (or 40+) for 401 DOT review. This suggestion was provided under Chapter 9’s Task 6.

Initiating review of DOT projects under the Coastal 401 Certification Program would help in addressing and meeting this urban MM. New coastal 401 certification staff would be funded under DOT and, therefore, afford their time to DOT project review.

10.3 Hydromodification Management Measures

Hydrologic modification, or hydromodification, includes stream projects such as dredging, channelization, stream alterations, flow modification and regulation, shoreline erosion, wetland disturbances, dam construction, and others. In Georgia, hydromodification impacts streams and rivers by impairing their designated uses. Management measures under this category must attempt to control the addition of pollutants to surface and ground waters by implementing the best available nonpoint source pollution control practices, technologies, processes, criteria, operating methods and other alternatives.

The EPA released a July 2007 final document entitled “*National Management Measures to Control Nonpoint Source Pollution from Hydromodification* (EPA 841-B-07-002). The document defines hydromodification as “the alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources.” (page 1-1)

The following text, which was taken directly from the EPA 2007 document, state the following:

*Examples of hydromodifications to streams include dredging, removing snags, straightening, and, in some cases, complete stream relocation. Other examples include construction in or along streams, construction and operation of dams and impoundments, channelization in streams, dredging, and land reclamation activities. Hydromodification can also include activities in streams that are being done to maintain the stream's integrity such as removing snags. Some indirect forms of hydromodification, such as erosion along streambanks or shorelines, are caused by the introduction or maintenance of structures in or adjacent to a waterbody and other activities, including many **upland activities**, [emphasis added] that change the natural physical properties of the waterbody. (page 1-1)*

EPA has grouped hydromodification activities into three categories and are as follows:

- Channelization and channel modification;
- Dams
- Streambank and shoreline erosion.

The following definitions were offered in the 2007 EPA document to clarify some key terms:

Channelization and channel modification include activities such as straightening, widening, deepening, and clearing channels of debris and sediment. Categories of channelization and channel modification projects include flood control and drainage, navigation, sediment control, infrastructure protection, mining, channel and bank instability, habitat improvement/enhancement, recreation, and flow control for water supply (Watson et al., 1999). Channelization activities can play a critical role in NPS pollution by increasing the timing and delivery of pollutants, including sediment, that enter the water. Channelization can also be a cause of higher flows during storm events, which potentially increases the risk of flooding. (page 1-1)

Channelization and channel modification can:

- disturb stream equilibrium
- disrupt riffle and pool habitats
- create changes in stream velocities
- eliminate the function of floods to control channel-forming properties
- alter the base level of a stream (streambed elevation), and
- increase erosion and sediment load.

Dams are artificial barriers on waterbodies that impound or divert water and are built for a variety of purposes, including flood control, power generation, irrigation, navigation, and to create ponds, lakes, and reservoirs for uses such as livestock watering, municipal water supply, fish farming, and recreation. While these types of dams are constructed to provide benefits to society, they can contribute to NPS pollution. For example, dams can alter flows, which ultimately can cause impacts to water quality (changes to temperature or dissolved gases) and biological/habitat (disruption of spawning or altering of plant and benthic communities) above and below the dam (page 1-2).

Streambank and shoreline erosion are the wearing away of material in the area landward of the bank along non-tidal streams and rivers. Streambank erosion occurs when the force of flowing water in a river or stream exceeds the ability of soil and vegetation to hold the banks in place. Eroded material is carried downstream and redeposited in the channel bottom or in point bars located along bends in the waterway. Shoreline erosion occurs in large open waterbodies, such as the Great Lakes or coastal bays and estuaries, when waves and currents sort coarser sands and gravels from eroded bank materials and move them in both directions along the shore away from the area undergoing erosion. While the underlying forces causing the erosion may be different for streambank and shoreline erosion, the results (erosion and its impacts) are usually similar. It is also important to note that streambank and shoreline erosion are natural processes and that natural background levels of erosion also exist. However, human activities along or adjacent to streambanks or shorelines may increase erosion and other nonpoint sources of pollution (page 1-2).

The complete list of management measures for hydromodification are provided below in Table 6.

Table 6. MANAGEMENT MEASURES FOR HYDROMODIFICATION: CHANNELIZATION AND CHANNEL MODIFICATION, DAMS, AND STREAMBANK AND SHORELINE EROSION

<p><u>II. Channelization and Channel Modification</u></p> <p>A. Physical and Chemical Characteristics of Surface Waters</p>	<p>(1) Evaluate the potential effects of proposed channelization, and channel modification on the physical and chemical characteristics of surface waters in coastal areas;</p> <p>(2) Plan and design channelization and channel modification to reduce undesirable impacts; and</p> <p>(3) Develop an operation and maintenance program for existing modified channels that includes identification and implementation of opportunities to improve physical and chemical characteristics of surface waters in those channels.</p>
<p>B. Instream and Riparian Habitat Restoration</p>	<p>(1) Evaluate the potential effects of proposed channelization and channel modification on instream and riparian habitat in coastal areas;</p> <p>(2) Plan and design channelization and channel modification to reduce undesirable impacts; and</p> <p>(3) Develop and operation and maintenance program with specific timetables for existing modified channels that includes identification of opportunities to restore instream and riparian habitat in those channels.</p>
<p><u>III. Dams</u></p> <p>A. Erosion and Sediment Control</p>	<p>(1) Reduce erosion and, to the extent practicable, retain sediment onsite during and after construction, and</p> <p>(2) Prior to land disturbance, prepare and implement an approved erosion and sediment control plan or similar administrative document that contains erosion and sediment control provisions.</p>
<p>B. Chemical and Pollutant Control</p>	<p>(1) Limit application, generation, and migration of toxic substances;</p> <p>(2) Ensure the proper storage and disposal of toxic materials; and</p> <p>(3) Apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters.</p>
<p>C. Protection of Surface Water Quality and Instream and Riparian Habitat</p>	<p>Develop and implement a program to manage the operation of dams in coastal areas that includes an assessment of:</p> <p>(1) Surface water quality and instream and riparian habitat and potential for improvement and</p> <p>(2) Significant nonpoint source pollution problems that result from excessive surface water withdrawals.</p>
<p><u>IV. Streambank and Shoreline Erosion</u></p> <p>A. Eroding Streambanks and Shorelines</p>	<p>(1) Where streambank or shoreline erosion is a nonpoint source pollution problem, streambanks and shorelines should be stabilized. Vegetative methods are strongly preferred unless structural methods are more cost-effective, considering the severity of wave and wind erosion, offshore bathymetry, and the potential adverse impact on other streambanks, shorelines, and offshore areas.</p> <p>(2) Protect streambank and shoreline features with the potential to reduce NPS pollution.</p> <p>(3) Protect streambanks and shorelines from erosion due to uses of either the shorelands or adjacent surface waters.</p>

Many of the operation and maintenance solutions for channelization and channel modification are also practices that can be used to stabilize streambanks and shorelines. Chapter 7 of the 2007 *EPA Hydromodification Guidance* provides extensive descriptions and illustrations to help provide a starting point for stakeholders and decision-makers for selecting possible practices to address NPS pollution problems associated with hydromodification activities.

Authority for GADNR/EPD's role in the issuance of federal licenses or permits and management of nonpoint source impacts from hydromodification activities, *such as coastal dredging*, are through provisions of Section 401 of the Clean Water Act (CWA). Section 401 requires applicants for federal licenses or discharge permits to provide the ACOE a certification from EPD that discharges will comply with applicable provisions of CWA Sections 301, 302, 303, 306, and 307. EPD's water quality certifications for hydromodification are restricted to activities regulated under Section 404 and hydropower activities regulated by the Federal Energy Regulatory Commission (FERC). ACOE rules require an evaluation of all potential impacts and projects must be designed to avoid, minimize, and mitigate impacts. The federal license or permit may not be issued unless the state has granted or waived certification.

In addition, additional tasks provided above in Chapters 8-10 help meet the management measures for hydromodification.

10.3.1 Management Measure – Channelization and Channel Modification

Implementation of these MMs should begin during the planning process for new projects. The approach is two-pronged and should include:

Planning and evaluation with numerical models for some situations, of the types of NPS pollution related to instream and riparian habitat changes and watershed development. *Operation and maintenance programs that apply* (a) a combination of nonstructural and structural practices and (b) activities that restore habitat through the application of a combination of nonstructural and structural practices to address some types of NPS problems stemming from instream and riparian habitat changes or watershed development.

Task 18. During the 401 certification process, require the evaluation of the environmental consequences of hydromodification projects. Request the utilization of models/methodologies as one means to evaluate the effects of proposed channelization and channel modification projects on the physical and chemical characteristics of surface waters.

In the planning-level evaluations of proposed hydromodification projects, it is critical to understand that the surface water quality and ecological impact of the proposed project will be driven primarily by the alteration of physical transport processes. In addition, it is critical to realize that the most important environmental consequences of many hydromodification projects will occur over a long-term time scale of years to decades.

The key element in the selection and application of models for the evaluation of the environmental consequences of hydromodification projects is the use of appropriate models to adequately characterize circulation and physical transport processes. Appropriate surface water quality and ecosystem models (e.g., salinity, sediment, cultural eutrophication, oxygen, bacteria, fisheries, etc.) are then selected for linkage with the

transport model to evaluate the environmental impact of the proposed hydromodification project. Table 8.1 of the 2007 *EPA Hydromodification Guidance* lists some of the available models and assessment approaches for studying the effects of channelization and channel modification activities.

Task 19. During the 401 certification review process, require the implementation of management practices to avoid or mitigate the physical and chemical impacts and instream and riparian habitat restoration generated by hydromodification projects. This may be achieved through the protection of existing uses.

In cases where existing channelization or channel modification projects can be changed to enhance instream or streamside characteristics, several practices can be included as a part of regular operation and maintenance programs. New channelization and channel modification projects that cause unavoidable physical or chemical changes in surface waters can also use one or more practices to mitigate the undesirable changes. The practices include:

- Streambank protection
- Levees
- Setback levees and floodwalls
- Grade control structures
- Vegetative cover
- Instream sediment load controls
- Noneroding roadways.

By using one or more of these practices in combination with predictive modeling (see Task 19 above), the adverse impacts of channelization and channel modification projects can be evaluated, avoided, and for projects currently in place, possibly corrected.

Additional information about these practices, their effectiveness, limitations, and cost estimates and additional resources are provided on pages 3-2 through 3-9 of the 2007 *EPA Hydromodification Guidance*.

Task 20. During 401 certification review, require the applicant to assess the biological impacts of channelization.

Several tools can be used to evaluate the instream and riparian health of a stream system. These approaches include:

- Biological methods/models
- Temperature restoration practices
- Geomorphic assessment techniques
- Expert judgment and checklists.

To assess the biological impacts of channelization/dredging, it is necessary to evaluate both the physical and biological attributes of the stream system. Assessment studies should be performed before and after channel modification, with samples being collected upstream from, within, and downstream from the modified reach to allow characterization of baseline conditions. It is also desirable to identify and sample a reference site within the same ecoregion as part of a rapid bioassessment.

Additional information on these assessments and practices are provided on pages 3-11 through 3-17 of the *2007 EPA Hydromodification Guidance*.

10.3.2 Management Measures – Dams

Task 21. During the 401 certification review process for dams, require that the applicant prepare and implement an approved erosion and sediment control plan.

It is essential that proper erosion and sediment control practices be used to protect surface water quality for the construction of new dams and maintenance of existing dams because of the high potential for sediment loss directly to surface waters. Two broad performance goals constitute this management measure: minimizing erosion and maximizing the retention of sediment onsite.

The MM practices are provided in the *2007 EPA Hydromodification Guidance* on pages 4-5 through 4-9.

In addition, this measure can be incorporated into the existing state erosion and sediment control program. Other previous tasks recognized in this chapter regarding E&S measures can be incorporated as well.

Task 22. During the 401 certification review process for dams, require that the applicant provide a Spill Prevention and Control Program.

This management measure addresses fuel and chemical spills associated with dam construction, as well as concrete washout and related construction activities. Although suspended sediment is the major pollutant generated at a construction site, other pollutants may include:

- Petroleum products – fuels and lubricants, specifically gasoline, diesel oil, kerosene, lubricating oils, grease, and asphalt
- Pesticides – insecticides, herbicides, fungicides, and rodenticides
- Fertilizers
- Construction chemicals – acids, soil additives, and concrete-curing compounds
- Wastewater – aggregate wash water, herbicide wash water, concrete-curing water, core-drilling wastewater, or clean-up water from concrete mixers
- Solid wastes – paper, wood, metal, rubber, plastic, and roofing materials
- Garbage
- Sanitary wastes

- Cement
- Lime.

On pages 4-10 through 4-11 of the *2007 EPA Hydromodification Guidance*, various practices for controlling chemicals and pollutants are provided.

Task 23. During 401 certification review of dams, require the applicant to implement the appropriate nonpoint source pollution management measure practices in order to protect surface water quality and instream and riparian habitat from dam operation, maintenance and removal.

Where applicable, successful implementation of this MM will generally involve the following categories of practices undertaken individually or in combination to improve water quality and aquatic and riparian habitat in reservoir impoundments and in tailwaters:

- Artificial destratification and hypolimnetic aeration of reservoirs with deep withdrawal points that do not have multilevel outlets to improve DO levels in the impoundment and to decrease levels of other types of NPS pollutants, such as manganese, iron, hydrogen sulfide, methane, ammonia, and phosphorus in reservoir releases;
- Aeration of reservoir releases, through turbine venting, injection of air into turbine releases, installation of reregulation weirs, use of selective withdrawal structures, or modification of other turbine start-up or pulsing procedures
- Providing both minimum flows to enhance the establishment of desirable instream habitat and scouring flows as necessary to maintain instream habitat
- Establishing adequate fish passage or alternative spawning ground and instream habitat for fish species
- Improving watershed protection by installing and maintaining BMPs in the drainage area above the dam to remove phosphorus, suspended sediment, and organic matter and otherwise improve the quality of surface waters flowing into the impoundment
- Removing dams, which are unsafe, unwanted, or obsolete, after careful consideration of alternatives.

The management practices for improving water quality associated with the operation and maintenance of dams can be categorized as (a) watershed protection practices; (b) practices for aeration of reservoir water; and (c) practices for aeration of reservoir releases. Additional management practices include improving aquatic habitat and maintaining fish passage.

The MM practices and additional resources are provided in detail on pages 4-14 through 4-21 of the *2007 EPA Hydromodification Guidance*.

10.3.3 Management Measure – Streambank and Shoreline Erosion

Many human activities change the hydraulic characteristics of stream flows or transfer energy to adjacent shorelines and contribute to increased streambank and shoreline erosion, for example:

- Urbanization
- Agricultural practices
- Livestock grazing
- Roads
- Dock structures and marinas
- Channelization and channel straightening
- Dams.

In summary, these anthropogenic factors can affect the state of equilibrium in streams or along shorelines. The typical chain of events that follows the disturbance to a stream corridor or shoreline can be described as changes in hydrology, stream hydraulics, morphology, factors such as sediment transport and storage, and alteration to the biological community.

Preservation and protection of shorelines and streambanks can be accomplished through many approaches, however, as emphasized in the *2007 EPA Hydromodification Guidance*, “preference in this guidance is for nonstructural practices, such as soil engineering and marsh creation, where their use is appropriate.”

The MM practices and additional resources are provided in detail on pages 5-5 through 5-9 of the *2007 EPA Hydromodification Guidance*.

Task 24. During 401 certification review, require nonstructural practices, where appropriate, to stabilize and protect streambank and shorelines features from erosion.

Soil bioengineering is used here to refer to the installation of living plant material as a main structural component in controlling problems of land instability where erosion and sedimentation are occurring. Basic principles of soil bioengineering include the following:

- Fit the soil bioengineering system to the site (topography and exposure, geology and soils, and hydrology)
- Retain existing vegetation whenever possible
- Limit removal of vegetation
- Stockpile and protect topsoil
- Protect areas exposed during construction
- Divert, drain, or store excess water.

Specific nonstructural practices include:

- Marsh creation and restoration
- Live staking
- Live fascines
- Brush layering
- Brush mattresses
- Branch packing
- Coconut fiber roll
- Dormant post planting
- Tree revetments.

Application of these nonstructural practices are described in Chapter 7 of the *2007 EPA Hydromodification Guidance*. They are also described in the GADNR/EPD document entitled *Streambank and Shoreline Stabilization Guidance*.

Detailed information and resources on these nonstructural practices are also available on pages 3-8-22 of the *2007 EPA Hydromodification Guidance*.

Task 25. During 401 certification review, require structural practices, setbacks, or an integration of these practices with nonstructural practices, where appropriate, to stabilize and protect streambank and shorelines features from erosion.

Integrated systems include joint planting, live cribwalls, bank shaping and planning, vegetated gabions, rootwad revetments, vegetated giogrids, and vegetated reinforced soil slope.

Properly designed and constructed shoreline and streambank erosion control structures are used in areas where higher water velocity or wave energy make biostabilization and marsh creation ineffective. In addition to careful consideration of the engineering design, the proper planning for a shoreline or streambank protection project will include a thorough evaluation of the physical processes causing the erosion.

Examples of structural approaches appropriate for coastal Georgia include:

- Riprap
- Bulkheads and seawalls (limited use)
- Revetment
- Beach nourishment (not considered structural, but is preferred method under Shore Protection Act)
- Toe protection

Detailed information on these practices are provided in Chapter 7 of the *2007 EPA Hydromodification Guidance*.

Task 26. In an effort to reduce the impact of hydromodification on the State's coastal waters, the 401 water quality certification staff should use several state and

federal resources, including the Federal Interagency Stream Restoration Working Group's *Stream Corridor Restoration Handbook* BMPs and the USDA Forest Service's *A Soil Bioengineering Guide for Streambank and Lakeshore Stabilization* for incorporation into 404/401 projects.

A "*Stream Corridor Restoration; Principles, Processes and Practices*" guidance document was compiled through a cooperative effort of fifteen federal agencies deemed under the Federal Interagency Stream Corridor Working Group (FISRWG) (Original October 1998 version of document now revised in August 2001). The document contains step-by-step guidelines on managing streams from a watershed approach.

Another key reference is the USDA-Forest Service guide entitled *A Soil Bioengineering Guide for Streambank and Lakeshore Stabilization* (website: <http://www.fs.fed.us/publications/soil-bio-guide>).

The coastal 401 certification staff should utilize the federal, state and local regulations, laws and ordinances that are applicable to requiring that BMPs be incorporated into the 404 projects in order to reduce the impact that hydromodification has on the State's coastal waters.

Information about these guidance documents and other available resources are available throughout the *2007 EPA Hydromodification Guidance*.

10.4 Additional Tasks

The following tasks are broad in nature, and therefore, are applicable to a variety of MM discussed above.

Task 27. The State should partner with the Natural Heritage Program/Nongame Conservation Section and other appropriate State and federal agencies to identify environmentally sensitive, critical conservation areas.

The identification of environmentally sensitive areas, also referred to as critical conservation areas, is an essential component of a water quality and watershed protection program. These areas need to be identified in order to: (1) avoid developing areas susceptible to erosion and sediment loss; (2) preserve areas that provide important water quality benefits, such as wetlands, permeable soils, forested buffers, and riparian areas. Such types of lands that should be preserved for watershed protection include critical habitat, aquatic corridors, hydrologic reserves, water pollution hazards, and cultural and historical sites. Inventories of these areas can be developed using wetland inventories, soil maps, maps of critical habitat for threatened and endangered species, GIS tools, remote sensing, vegetative cover inventories/maps, and forest inventories.

This particular task can be achieved through the implementation of the two-year coastal wetland mapping inventory effort, the rapid coastal assessment/inventory list being conducted by the Natural Heritage Program/Nongame Conservation Section (both

discussed under Task 10 of Chapter 9), and implementation of the Coastal Georgia Land Conservation Initiative.

Task 28. In coordination with other staff of EPD, establish minimum requirements of the watershed protection plan, general conditions and minimum BMP requirements, measurable goals, and development and implementation of runoff practices (both structural and nonstructural). Where appropriate, identify and request the necessary implementation requirements of watershed assessments and watershed protection plans during the water quality certification review process.

Chapter 3 of the EPA 2006 Urban guidance document provides a broad overview of watershed management plan development, implementation, and land or development rights acquisition practices. This EPA document as well as other resources can serve as a tool to the applicant in order to obtain the appropriately designed plan.

In Georgia, watershed protection plans are an important tool for controlling nonpoint source pollution or run off in existing and growing areas. Cities and counties with large wastewater treatment facilities, or cities and counties who are building new or expanding wastewater treatment facilities, have growth potential for new development. The Georgia Watershed Assessment, Protection Plan, and Monitoring provide a means for understanding and controlling the additional pollution that might be generated as a result of growth in a community.

Approximately five years ago, the GADNR Board adopted a policy for publicly-owned wastewater treatment facilities to develop and implement a Watershed Protection Plan for watersheds contained within their political boundaries and the areas to which they provide sewer service. Under the provisions of the Statewide Water Management plan, the Board will consider adding new rules and regulations related to Watershed Assessments and Watershed Protection Plans. New rules would require plans be developed pursuant to relevant state law, and prepared in accordance with latest guidance provided by the GADNR/EPD. Also, population projections used in support of permit applications shall be used to assess whether local governments are projected to become subject to stormwater municipal permitting, and would therefore have to include pre-planning for stormwater management. In addition, a new rule could be added to require the Director to evaluate Watershed Assessments and Protection Plans when reviewing water withdrawal and drinking water permit applications. This makes a new link between water resources – water quality and water quantity.

Current policy requires that the Watershed Protection Plan be a condition of the wastewater treatment facility permits for publicly owned treatment works for facilities discharging greater than one million gallons per day (MGD) or for new or expanding facilities. The requirement for development and approval of a Watershed Protection Plan is incorporated into existing permits with design flows greater than 1.0 MGD, as these permits come up for reissuance during a river basin planning permitting cycle. New and expanding facilities must also have a Watershed Protection Plan developed and approved by EPD prior to the facility going on line or discharging at higher flows.

The purposes of the Watershed Protection Plan are to:

- correct any current water quality problems causing water quality standards violations,
- develop and put in place best management practices (BMPs) to prevent water quality standards violation, and
- provide ongoing monitoring to either verify that the BMPs are working or provide information necessary to modify practices to achieve water quality standards

The Watershed Assessment and Plan requirements apply to either discharging facilities with National Pollutant Discharge Elimination System (NPDES) permits or systems which land apply, i.e. Land Application System (LAS) permits. The Watershed requirements, however, only apply to publicly owned systems, City or County owned wastewater treatment systems.

If the city or county had already performed Watershed Assessment work, or had a Watershed Protection Plan approved by EPD, this work would not need to be repeated and the permit requirements would reflect the current status. However, an approved Watershed Protection Plan does require that the permittee perform continual monitoring of its area streams to keep track of their status in meeting or maintaining compliance with water quality standards.

The costs associated with performing a watershed assessment and developing a watershed protection plan are variable depending on the size of the community and facility design treatment capacity. The larger wastewater treatment facilities have the capability to serve a higher population and impact a greater geographic area than small wastewater treatment facilities. More streams would need to be assessed and continually monitored for larger communities than that needed for smaller communities. Permittees in the Coastal Nonpoint Management Area and the Coastal Nonpoint Area of Special Interest include the City of St. Mary's, Effingham County, St. Simon's Island, City of Savannah, City of Pooler, City of Baxley, City of Brunswick, City of Garden City, City of Statesboro and the City of Waycross.

Links are provided to EPD's guidance documents:

- [Watershed Monitoring](#)
- [Watershed Assessment](#)
- [Watershed Protection Plan](#)

Task 29. The State should partner with the USFWS, NMFS, Natural Heritage Program/Nongame Conservation Section and other appropriate State and federal agencies to identify, map (via GIS) and implement best management practices necessary for the remediation or prevention of habitat loss or degradation of various federal and state threatened and endangered (T&E) flora and fauna associated with

CWA Section 303(d)/TMDL Category IB listed priority watersheds. Efforts may also include addressing wetlands or other biologically significant species or communities as resources are available. Integration of these datalayers with a 401 database is strongly recommended. Creation and hiring of a GADNR position to integrate these different GIS efforts is strongly encouraged.

Implementation of this task supports the first management measure which can protect the full range of functions for wetlands and riparian areas that serve an NPS abatement function. This protection will preserve the wetlands and riparian area values as an NPS pollution control and help to ensure that they do not become a significant nonpoint pollutant source as a result of degradation.

Jointly, USFWS, NMFS, EPD and the Natural Heritage Program should initiate a T&E habitat identification and remediation program for priority nonpoint source watersheds. The sensitive areas and habitats for T&E species and natural communities in high priority Category 1B watersheds should be identified. The floral and faunal stressors, pollutant sources, and environmental indicators that can be used to measure protection success and progress should be identified.

A map or GIS datalayer of sensitive lands and other significant biological features should then be produced. The GIS datalayers should then be utilized to identify wetland and other sensitive areas for protection and reference prior to hydrologic/habitat modification land disturbance planning or activities. This GIS database can also serve as a potential tool for cumulative impacts. The map should be comprehensible and suitable for use by local community-based environmental protection groups for training and presentations to private, local, state, and federal stakeholders.

Task 30. Once Task 29 has been accomplished, a task force should be convened to determine the establishment of minimum site-specific hydrologic/habitat modification easements or greenways for streams, other priority waters, and sensitive areas based on slope, soils and other factors.

A task force should then determine the establishment of minimum site-specific Hydrologic/Habitat Modification easements or greenways for streams, other priority waters, and sensitive areas based on slope, soils, and other factors.

Task 31. EPD should promote and implement a centralized statewide and local clearinghouse to provide up-to-date Hydrologic/Habitat modification information. This repository can then be used to ascertain cumulative waterbody and other environmental effects.

The clearinghouse would instill all stakeholders to cooperatively share and exchange data and information as it relates to Hydrologic/Habitat Modification practices in watersheds adversely affected by Hydrolog/Habitat Modification pollutants. EPD could utilize this clearinghouse to develop and disseminate watershed-specific citizen guides to Hydrologic/Habitat Modification runoff to include site evaluation and remediation

options and resources. In addition, the clearinghouse could promote dissemination of user-friendly and easily accessible public database tracking systems, GIS data layers, and annual or other reports.

Task 32. EPD should seek a stable source of funding to support prioritized Stream Habitat Restoration-Sensitive Area Identification initiatives such as wetlands, streams, and other biologically significant species and communities. Coordination with the local USFWS Ecological Services Field Office, NRCS, ACOE and the Natural Heritage Program/Nongame Conservation Section is strongly encouraged.

While implementation of these measures provide tools for addressing streambank erosion and channel stability issues, structural measures are often needed to adequately address the problems. Therefore, streambank and channel restoration projects should be designed and constructed utilizing geomorphological design considerations through an overall watershed approach.

While almost all water bodies are identified on topographic maps, urbanization has changed flow patterns along drainage ways, which has resulted in the possible creation of additional stream miles throughout Georgia's coast. Therefore, there is a need to develop a process for defining and identifying streams. The process should include identification of streams with channel stability problems, eroding streambanks and water quality or habitat problems associated with channelization.

Task 33. Develop and offer incentives and initiate annual awards and recognition program for developers of innovative projects that incorporate stream and wetland protection practices in new developments. More specifically, encourage the applicant to participate in the *UGA MAREX Coastal Green Certification Program*.

The *UGA MAREX Coastal Green Certification Program* provides a point credit system to developers who incorporate innovative stream protection practices in new developments. Once implemented, the Program should encourage recognition to those developers who have initiated and/or completed such projects.

Task 34. Develop green infrastructure connected corridors, greenways or easement plans for Section 303(d) listed segments, other priority waters, and sensitive areas needing protection (in perpetuity) of sensitive flora, fauna, and other natural resources.

Task 35. Establish a workgroup to develop the definition of a stream and to identify all streams within the counties comprising the Coastal Nonpoint Source Management Area and Area of Special Interest.

Task 36. Identify sections of streams within the coastal counties contributing to nonpoint source pollution due to channelization, channel instability or excessive streambank shoreline erosion due to adjacent land use.

Task 37. Develop Hydrologic/Habitat Modification pollutant TMDLs for applicable Section 303(d) listed waterbodies in coastal Georgia.

Task 38. Develop and have in place pollution prevention measures that target future threats in priority areas along the coast.

Task 39. Promote undisturbed natural groundcover to reduce erosion and sedimentation in Section 303(d) listed waterbodies to promote recovery and/or perpetuation of healthy aquatic organisms. Encourage applicant participation in the UGA MAREX *CoastScapes* and *Coastal Green Certification Program*.

Task 40. Establish a Stream Management and Technical Design Workgroup (SWTDW) to review and make recommendations about technical design standards and specifications for streambank restoration practices.

Task 41. Help to develop model Stream Protection Regulations including floodplain ordinances that protect natural stream functions for adaption by local planning agencies, municipalities, counties, and local jurisdictions.

Task 42. Promote integration of UGA MAREX *CoastScapes* conservation landscaping program to promote water conservation and quality, reduced fertilizer and pesticide use, and habitat enhancement.

Task 43. Continue to develop criteria and coastal regional conditions for Georgia under Section 401/404 permitting program (including both individual and nationwide permits) to provide more geographically appropriate and consistent conditions/requirements for headwater stream protection.

Task 44. When possible, encourage local governments, nonprofit organizations, and planning agencies to prepare comprehensive land use plans and develop incentives that encourage preservation of wetlands and other environmentally sensitive areas. Provisions to support these efforts are identified in the recently developed Coastal Comprehensive Plan (developed under the Georgia Department of Community Affairs). In addition, additional incentives are provided through applicant participation in the UGA MAREX *Coastal Green Certification Program*.

Task 45. Consider developing a fine structure, under authority granted for fish kills to include penalties for the killing and taking of mussels, macroinvertebrates, and small fish.

Task 46. In coordination with other GADNR programs and state and federal agencies (e.g., NRCS, USFWS), create voluntary register for properties along headwater streams and coastline for recording voluntary deed restrictions to protect riparian corridors.

Task 47. When applicable, endorse the National Conservation and Reinvestment Act to provide funding (from offshore oil and gas drilling revenues) for habitat protection, and encourage use of funds to protect stream habitats.

Task 48. Utilize transportation funding (SAFETEA-LU) to restore and enhance headwater streams and riparian corridors. Develop demonstration projects in conjunction with highway reconstruction.

Chapter 11. Appendices

Appendix 1.

November 15, 2006 USEPA Office of Water Memorandum Regarding Establishing TMDL "Daily" Loads in Light of the Decision by the U.S. Court of Appeals for the D.C. Circuit in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015, (April 25, 2006) and Implications, for NPDES Permits

November 15, 2006

MEMORANDUM

SUBJECT: Establishing TMDL "Daily" Loads in Light of the Decision by the U.S. Court of Appeals for the D.C. Circuit in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015, (April 25, 2006) and Implications, for NPDES Permits

FROM: Benjamin H. Grumbles

Assistant Administrator

TO: Director, Office off Ecosystem Protection, Region 1
Director, Division of Environmental Planning and Protection, Region 2
Water Division Directors, Regions 3-7 and Region 9
Director, Office of Ecosystems Protection and Remediation, Region 8
Director, Office of Environmental Cleanup, Region 10

The purpose of this memorandum is to clarify EPA's expectations concerning the appropriate time increment used to express "total maximum daily loads" (TMDLs) in light of the recent decision by the U.S. Court of Appeals for the D.C. Circuit in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015 (D.C. Cir. 2006). In Friends of the Earth, the D.C. Circuit held that two TMDLs for the Anacostia River (one established by EPA and one approved by EPA) did not comply with the Clean Water Act because they were not expressed as "daily" loads.

The Friends of the Earth decision has raised some questions regarding the establishment of both TMDLs and effluent limits in National Pollutant Discharge Elimination System (NPDES) permits that implement wasteload allocations established in TMDLs. As explained in more detail below, EPA recommends that all future TMDLs and associated load allocations and wasteload allocations be expressed in terms of daily time increments. However, EPA does not believe that the Friends of the Earth decision requires any

changes to EPA's existing policy and guidance describing how a TMDL's wasteload allocations are implemented in NPDES permits.

EPA's Expectations Regarding "Daily" Loads in TMDLs

EPA continues to believe that the use of the word "daily" in the term "total maximum daily load" is not an unambiguous direction from Congress that TMDLs must be stated in the form of a uniformly applicable 24-hour load. However at this time, there is significant legal uncertainty about whether courts across the country will follow the reasoning of the D.C. Circuit decision in *Friends of the Earth* or that of the U.S. Court of Appeals for the Second Circuit in their decision in *NRDC v. Muszynski*.¹ In light of that uncertainty, EPA recommends that all TMDLs and associated load allocations and wasteload allocations be expressed in terms of daily time increments. In addition, TMDL submissions may include alternative, non-daily pollutant load expressions in order to facilitate implementation of the applicable water quality standards. TMDLs must continue to be established at a level necessary to attain and maintain the applicable water quality standards, account for seasonal variations and include a margin of safety. Because water quality standards are expressed in a variety of ways and because pollutants and water bodies have different characteristics, EPA believes that there is some flexibility in how the daily time increments may be expressed. The following are a few examples of this potential flexibility:

If consistent with the applicable water quality standard and technically suitable for the pollutant and water body type in question, a TMDL and associated load allocations and wasteload allocations may be expressed as both minimum and, maximum daily loads, or as average daily loads. For example, a TMDL for the pollutant parameter pH may include both minimum and maximum values consistent with how the applicable WQS for the parameter pH is expressed (commonly as a range.)

If technically appropriate and consistent with the applicable water quality standard, it may also be appropriate for the TMDL and associated load allocations and wasteload allocations to be expressed in terms of differing maximum daily values depending on the season of the year, stream flow (e.g., wet v. dry weather conditions) or other factors. In situations where pollutant loads, water body flows, or other environmental factors are highly dynamic, it may be appropriate for TMDLs and associated allocations to be expressed as functions of controlling factors such as water body flow. For example, a load-duration curve approach to expressing a TMDL and associated allocations might be appropriate, provided it clearly identifies the allowable daily pollutant load for any given day as a function of the flow occurring that day. Using the load-duration curve approach also has the advantage of addressing seasonal variations as required by the statute and the regulations.

For TMDLs that are expressed as a concentration of a pollutant, a possible approach would be to use a table and/or graph to express the TMDL as daily loads for a range of possible daily stream flows. The in-stream water quality criterion multiplied by daily

stream flow and the appropriate conversion factor would translate the applicable criterion into a daily target (TMDL).

EPA will issue additional technical guidance providing specific information regarding the establishment of daily loads for specific pollutants that will take into consideration the averaging period of the pollutant, the type of water body, and the type of sources the TMDL needs to address.

Facilitating Implementation of Wasteload Allocations through the NPDES Permit Process

In certain circumstances (e.g., impairments caused by storm water), or where the applicable water quality criteria are expressed as a long-term average, it may be appropriate for TMDL documents or their supporting analysis to clearly set forth the implementation-related assumptions underlying any wasteload allocation expressed as a "daily" load. To facilitate implementation of such a load in water bodies where the applicable water quality standard is expressed in non-daily terms, it may be appropriate for the TMDL documentation to include, in addition to wasteload allocations expressed in daily time increments, wasteload allocations expressed as weekly, monthly, seasonal, annual, or other appropriate time increments. When this approach is taken, the TMDL and its supporting documentation should clearly explain that the non-daily loads and allocations are implementation-related assumptions of the daily wasteload allocations and are included to facilitate implementation of the daily allocations as appropriate in NPDES permits and nonpoint source directed management measures. The supporting documentation should discuss the reasons for, and assumptions behind, the non-daily loads to facilitate their understanding and use in the implementation phase.

Recommendations Concerning Existing TMDLs and TMDLs in Process

Through significant effort of the States and EPA regions, more than 20,000 TMDLs have been established, most of them in the last five or six years. EPA's database also shows that approximately 65,000 causes of impairment still need to be addressed by TMDLs. EPA believes that continued development of TMDLs pursuant to State TMDL development schedules is the highest priority at this time. If already existing TMDLs need to be revised in the future, revision of the TMDLs and allocations should be consistent with the recommendations in this memorandum.

For TMDLs under development that have not yet been adopted by States or established by EPA, EPA recommends that such TMDLs and allocations be revised, if feasible, to be consistent with this memorandum prior to their adoption or establishment. If States adopt and submit TMDLs expressed solely in non-daily terms, EPA expects to ask the submitting State to provide written documentation regarding how the submitted TMDLs and allocations would be expressed in daily terms. Such documentation provided by States could then be included in the administrative records supporting EPA's decisions on the TMDLs. If it is unable to obtain such documentation from a State, EPA may develop calculations for its administrative approval record demonstrating how the State's TMDLs

and allocations would be expressed in daily terms. In this case, EPA would make it clear that its approval of the State's TMDL is contingent on the assumption that such TMDL contains the daily load calculations developed by EPA.

We recommend that States consult with EPA regarding specific TMDL projects early in the development process to determine appropriate approaches to expressing the TMDLs and allocations. We are working to provide technical support as soon as practicable. First, we will be providing a draft of a technical document outlining an approach for deriving daily limits for bacteria, TSS, sediments and nutrients using the load duration curve approach. In addition, we are preparing a series of technical fact sheets and case studies based on typical averaging periods of criteria, types of water body and types of sources, to provide technical support in developing daily loads for all pollutants. These should be available for review and comment within the next few months.

Implications of the Friends of the Earth Decision for NPDES Permits

The Friends of the Earth decision does not affect an NPDES permitting authority's ability to use the discretion available to it under the CWA and the NPDES regulations in establishing permit effluent limits and conditions.

There is no express or implied statutory requirement that effluent limitations in NPDES permits necessarily be expressed in daily terms. The CWA definition of "effluent limitation" is quite broad ("effluent limitation" is "any restriction ... on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources ..."). See CWA 502(11). Unlike the CWA's definition of TMDL, the CWA definition of "effluent limitation" does not contain a "daily" temporal restriction. Indeed, the central statutory requirement for water-quality based effluent limits in NPDES permits is that they implement applicable water quality standards. See CWA 301(b) (1) (C). Such water quality standards will include water quality criteria for various pollutant parameters that are expressed in terms of differing temporal periods of duration, including hourly, daily, weekly, monthly, seasonal, and annual, as appropriate for each pollutant parameter.² Accordingly, effluent limits in NPDES permits may be written in a form that derives from, and complies with, applicable water quality standards that use any of these various time measures. See 122.44(d)(1)(vii)(A).

EPA's regulations at 40 C.F.R. §122.44(d)(1)(vii) require the permitting authority to ensure that: (a) the level of water quality to be achieved by limits on point sources is derived from, and complies with, all applicable water quality standards; and (b) effluent limitations developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 C.F.R. 130.7. This provision does not require that effluent limits in NPDES permits be expressed in a form that is identical to the form in which an available wasteload allocation for the discharge is expressed in a TMDL. Rather, permit limits need only be "consistent with the assumptions and requirements" of a TMDL's wasteload allocation.³ To facilitate implementation of the TMDL, one of the stated "assumptions"

of a TMDL's daily load or daily wasteload allocation might be that, for purposes of NPDES implementation in an appropriate context (e.g., storm water), the permit writer has the flexibility to express the permit's effluent limitation using a time frame in keeping with, and appropriate to, the water body and pollutant in question and the applicable water quality standard. Indeed, the TMDL submission might even include such alternate temporal expressions of the total load or the wasteload allocation as implementation assumptions.

The Friends of the Earth decision does not affect the NPDES permitting authority's ability to use all available tools to translate TMDLs and their wasteload allocations into enforceable effluent limitations in discharge permits. For example, while the NPDES permitting regulations require "daily maximum" limits for continuous discharges from some point sources, the same regulations specifically authorize "average weekly" and "average monthly" limitations--rather than daily limitations--for discharges from publicly owned water treatment plants. See 40 C.F.R. 122.45(d). Moreover, the regulations further authorize the permit writer to use other unspecified units of time if it is impracticable to calculate daily, weekly or monthly limitations. *Id.* For non-continuous discharges, the regulations provide flexibility as to the manner in which such discharges are to be limited based on a consideration of factors, including frequency, total mass, maximum rate of discharge of pollutants and prohibition or limitation of specified pollutants by mass, concentration or other appropriate measure. See 40 C.F.R. 122.45(e).

NPDES permit regulations do not require that effluent limits in permits be expressed as maximum daily limits or even as numeric limitations in all circumstances, and such discretion exists regardless of the time increment chosen to express the TMDL. Therefore, expressing a TMDL as a daily load does not interfere with a permit writer's authority under the regulations to translate that daily load into the appropriate permit limitation, which in turn could be expressed as an hourly, weekly, monthly or other measure.

EPA will continue to use existing guidance and policy memoranda to guide the development of WQBELs that are consistent with both 40 CFR §122.44(d)(1)(vii) and 40 CFR § 122.45(d). These include: the Technical Support Document for Water Quality-based Toxics Control (TSD) dated March 1991, an EPA Memorandum titled Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs dated November 22, 2002, and a memorandum titled Annual Permit Limits for Nitrogen and Phosphorus for Permits Designed to Protect Chesapeake Bay and its tidal tributaries from Excess Nutrient Loading under the National Pollutant Discharge Elimination System dated March 3, 2004.

Recommendation Concerning NPDES Permits

EPA recommends that NPDES permitting authorities continue to establish effluent limits that implement wasteload allocations established in approved TMDLs in accordance with existing regulation, policy and guidance as described above.

cc: Ephraim King
Steve Neugeboren
Suzanne Schwartz
James Hanlon

1 In *NRDC v. Muszynski*, 268 F.3d 91 (2nd Cir. 2001), NRDC challenged EPA's approval of nutrient TMDLs with annual loads established by New York for reservoirs. The Second Circuit held that "the term 'total maximum daily load' is susceptible to a broader range of meanings" than loads calculated on a daily basis. 268 F.3d at 98-99. The D.C. Circuit decision in *Friends of the Earth* is controlling legal precedent for cases brought in the District of Columbia Circuit while the Second Circuit decision in *Muszynski* is controlling legal precedent in cases brought in the Second Circuit, which includes the States of New York, Connecticut, and Vermont. EPA encourages the three States within the Second Circuit, to submit TMDLs with "daily" loads in a manner consistent with this memorandum. EPA also recognizes that, while the Second Circuit did not vacate the TMDLs in question merely because they did not contain "daily" loads, it required a reasoned explanation for the choice of any particular "non-daily" load.

2 Section 2.1 of EPA's Technical Support Document for Water Quality-based Toxics Control (TSD) dated March 1991, describes the basis for establishing water quality criteria. EPA's recommended water quality criteria consist of three components: (1) magnitude, (2) duration, and (3) frequency. Magnitude refers to the concentration of the pollutant. Duration is the period of time (averaging period) over which the in-water concentration is averaged for comparison with criteria concentrations. This specification limits the length of time that in-water concentrations may exceed the criteria concentrations. Frequency is how often the criteria can be exceeded.

3 EPA's position on this issue was affirmed by the Environmental Appeals Board in *In re: City of Moscow, Idaho*, 10 E.A.D. 135, 148 (July 27, 2001) ("While the governing regulations require consistency, they do not require that the permit limitations that will finally be adopted in a final NPDES permit be identical to any of the WLAs that may be provided in a TMDL.")

Appendix 2.

Upland Component of Coastal Marshlands Protection

Coastal Marshlands Protection

Chapter 391-2-3

RULES

OF

GEORGIA DEPARTMENT OF NATURAL RESOURCES

COASTAL RESOURCES DIVISION

CHAPTER 391-2-3

COASTAL MARSHLANDS PROTECTION

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391-2-3-.02 Regulation of Upland Component of a Project

391-2-3-.02 Regulation of Upland Component of a Project

(1) Findings and Purpose.

(a) Findings. In promulgating this Rule, the Board declares the following:

1. *Georgia's coastal marshlands have long been recognized by the General Assembly and the Board as a vital natural resource system, a vital area of the state, and essential to maintain the health, safety, and welfare of all the citizens of the State.*
2. *The Coastal Marshlands Protection Act (CMPA) provides a grant of authority to the Board of Natural Resources and Coastal Marshlands Protection Committee to regulate certain activities that affect or have the potential to affect the coastal marshlands of the state, to ensure the values and functions of the coastal marshlands are not impaired and to protect the public interest.*
3. *Stormwater management measures, impervious surface coverage standards, and marshlands buffer design and maintenance measures as applied to projects which are subject to permitting under the Coastal Marshlands Protection Act are warranted so as to protect this vital area and to protect the public interest.*

(b) Purpose. The purpose of these Rules is to implement the authority of the Board of Natural Resources to promulgate rules and regulations for permitting under and enforcement of the Coastal Marshlands Protection Act. This Chapter establishes procedures and criteria to be applied by the Coastal Marshlands Protection Committee when reviewing applications for a permit to remove, fill, dredge, drain, or otherwise alter

any marshlands or construct or locate any structure on or over marshlands within the estuarine area of the state.

(2) Definitions used in this Rule.

(a) “Applicant” means any person who files a permit application under the Coastal Marshlands Protection Act.

(b) “Coastal marshlands” or “marshlands” means any marshland intertidal area, mud flat, tidal water bottom, or salt marsh in the State of Georgia within the estuarine area of the state, whether or not the tidewaters reach the littoral areas through natural or artificial watercourses. “Vegetated marshlands” shall include those areas upon which grow one, but not necessarily all, of the following: salt marsh grass (*Spartina alterniflora*), black needlerush (*Juncus roemerianus*), saltmeadow cordgrass (*Spartina patens*), big cordgrass (*Spartina cynosuroides*), saltgrass (*Distichlis spicata*), coast dropseed (*Sporobolus virginicus*), bigelow glasswort (*Salicornia bigelovii*), woody glasswort (*Salicornia virginica*), saltwort (*Batis maritima*), sea lavender (*Limonium nashii*), sea oxeye (*Borrchia frutescens*), silverling (*Baccharis halimifolia*), false willow (*Baccharis angustifolia*), and high-tide bush (*Iva frutescens*). The occurrence and extent of salt marsh peat at the undisturbed surface shall be deemed to be conclusive evidence of the extent of a salt marsh or a part thereof.

(c) “Committee” means the Coastal Marshlands Protection Committee.

(d) “Effective impervious cover” is the percentage derived when total impervious area is adjusted to reflect the fact that a site design results in the actual impervious surface characteristics of a site with a lower total impervious area, supported by scientific and engineering studies and findings.

(e) “Estuarine area” means all tidally influenced waters, marshes, and marshlands lying within a tide-elevation range from 5.6 feet above mean tide level and below.

(f) “Greenspace” means vegetative upland or wetland that remains in its natural state or has been developed only to the extent consistent with natural ecological systems protection.

(g) “Impervious Surface” means any surface such as pavement, roofs, roadways or other surface material through which water does not permeate.

(h) “Marshlands buffer” means a zone or strip of land of a specified width along the riparian border of the project that serves as a protective setback.

(i) “Marshlands component of the project” means the part of the project in an estuarine area or any structure on or over an estuarine area, including but not limited to marinas, community docks, bridges, piers, and bulkheads, requiring a permit under the Coastal Marshlands Protection Act pursuant to O.C.G.A. Section 12-5-286.

(j) “Nonstructural Stormwater Management Practice” means any naturally occurring or planted vegetation or other pervious component of a stormwater management plan that provides for, or enhances, stormwater quality and/or reduces stormwater quantity or provides other stormwater management benefits.

(k) “Person” means any individual, partnership, corporation, municipal corporation, county, association, or public or private authority, and shall include the State of Georgia, its political subdivisions, and all its departments, boards, bureaus, commissions, or other agencies, unless otherwise specifically exempted by the Coastal Marshlands Protection Act.

(l) “Project” means the proposed construction or maintenance activity identified in an application for a marshlands permit within the contemplation of the Coastal Marshlands Protection Act. A project may consist of two components: a marshlands component and an upland component, as defined herein.

(m) “Stormwater Treatment” means a process of remediation, reduction and/or elimination of the undesirable characteristics of runoff including, but not limited to, peak runoff rate, velocity, volume, and quantity of solids and pollutants.

(n) “Total Impervious Area” means all impervious surface in a specified area as calculated as a percent of the total area.

(o) “Untreated Stormwater” means runoff that is discharged without previously being managed by one or a combination of techniques that remediate, reduce and/or eliminate undesirable characteristics of the runoff.

(p) “Upland” means lands that are neither coastal marshlands nor wetlands.

(q) “Upland component of the project” is all those service areas, amenities, and recreational areas located inland of the Coastal Marshlands Protection Act jurisdiction line, that serve or augment the functioning of the marshlands component of the project, such as, but not limited to, dry stack boat storage; dockmaster shop; fuel storage and delivery facilities to serve the marshlands component of the project; and restrooms intended for users of the marshlands component of the project. This term may extend to and cover such facilities adjacent to or in proximity to the marshlands component of the project that are intended to serve exclusively or primarily the users of the marshlands component of the project if the Committee finds in its sole discretion that such facility is likely to alter the marshlands.

(r) “Wetlands” means areas that are inundated or saturated by surface or ground water often and long enough to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, marshes, bogs, and floodplains.

(3) Procedure for Determining Project Boundaries. The applicant shall delineate the boundaries of the proposed project. Such boundaries shall be subject to review and validation by the staff of the Department of Natural Resources to ensure that the entire project is delineated. Such boundaries shall be included in the application proposed for consideration by the Committee. In this regard, the applicant shall submit documentation identifying all areas that are planned to be used in connection with the project which is delineated, to allow the Coastal Marshlands Protection Committee to verify the extent of the project.

(4) Marshlands Buffers for Upland Component of the Project.

(a) There is established a 50-foot marshlands buffer applicable to the upland component of the project as measured horizontally inland from the coastal marshland-upland interface, which is the Coastal Marshlands Protection Act jurisdiction line, so as to ensure the project does not result in the filling or other alteration of the coastal marshlands.

(b) The applicant for a permit under the Coastal Marshlands Protection Act and these rules shall certify adherence to soil and erosion control responsibilities, which, for purposes of the Coastal Marshlands Protection Act shall include recognition of and compliance with the following requirements unless in conflict with a criterion or exception established by the Environmental Protection Division of the Department of Natural Resources.

1. Except as provided in subparagraph 2. of this paragraph and paragraph (d) below, no land-disturbing activities within the project boundaries shall be conducted within the 50-foot marshlands buffer, and such marshlands buffer shall remain in its natural, undisturbed state of vegetation, so as to naturally treat stormwater during both construction and post construction phases of the upland component of the project.

2. Land disturbance and construction of structures within the 50-foot marshlands buffer in the upland component of the project shall be limited to the following:

(i) Construction and maintenance of temporary structures necessary for construction of the marshlands component of the project;

(ii) Construction and maintenance of permanent structures that are required for the functionality of and/or provide permanent access to the marshlands component of the project; and

(iii) Planting and grading with vegetated materials within the marshlands buffer to enhance stormwater management, such as erosion and sediment control measures, and to allow pedestrian access for passive recreation.

(c) After such land disturbing activities associated with (b) 2. (i) above are completed, and except as allowed for in (b) 2. (ii) and (iii) above, the marshlands buffer must be restored to and maintained in a natural vegetated state or in a vegetated state at least as protective or better than pre-construction conditions, subject to hand trimming and thinning as authorized in the permit.

(d) Already existing impervious surfaces and structures within the marshlands buffer area may remain and be maintained, provided the replacement, modification or upgrade does not increase any encroachment upon the required marshlands buffer in effect at the time of the replacement, modification or upgrade.

(e) Marshlands buffers shall be designed, installed and/or maintained sufficiently such that stormwater discharge to coastal marshlands from the marshlands buffer is managed according to the policy, criteria, and information including technical specifications and standards in the latest edition of the Georgia Stormwater Management Manual, and as amended to address coastal specific issues.

(f) Nothing in this Rule shall be construed to limit the power or authority of the Director of the Environmental Protection Division.

(5) Stormwater Management Standards for the Upland Component of the Project.

(a) There shall be no discharge of untreated stormwater from developed or disturbed areas, whether surface or piped, to coastal marshlands from the upland component of the project. The Committee is authorized to waive this requirement if the Committee finds that the site or project characteristics prohibit treatment, there is no practicable alternative, and it has minimal adverse impact.

(b) In addition to the requirements of Section (5)(a) above, discharged stormwater from the upland component of the project shall be managed according to the policy, criteria, and information including technical specifications and standards in the latest edition of the Georgia Stormwater Management Manual, and as amended to address coastal specific issues.

(c) As a component of the stormwater treatment system, greenspace shall be retained and interconnected where practicable and appropriate.

(d) The use of non-structural stormwater management and stormwater better site design practices, such as those listed in the latest edition of the Georgia Stormwater Management Manual, and as amended to address coastal specific issues, shall be utilized to the maximum extent practicable.

(6) Impervious Surface. Pervious surfaces shall be used to the maximum extent practicable, and total impervious area shall be minimized with the goal of achieving no more than 15% effective impervious cover where practicable taking into account existing structures that are part of the project and the available land area that is part of the upland component of the project.

(7) Required Information. The Coastal Marshlands Protection Committee shall establish an application checklist to assist applicants. A copy of the application checklist may be obtained by contacting the Committee at its administrative headquarters: Coastal Resources Division, One Conservation Way, Suite 300, Brunswick, Georgia 31520, 912-264-7218.

Authority O.C.G.A. Title 12; O.C.G.A. 12-5-285

Appendix 3.
North Carolina Administrative Code
15A NCAC 02B.0200 – Outstanding Resource Waters

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS APPLICABLE TO SURFACE WATERS AND WETLANDS OF NORTH CAROLINA

15A NCAC 02B .0225 OUTSTANDING RESOURCE WATERS

(a) General In addition to the existing classifications, the Commission may classify unique and special surface waters of the state as outstanding resource waters (ORW) upon finding that such waters are of exceptional state or national recreational or ecological significance and that the waters have exceptional water quality while meeting the following conditions:

- (1) that the water quality is rated as excellent based on physical, chemical or biological information;
- (2) the characteristics which make these waters unique and special may not be protected by the assigned narrative and numerical water quality standards.

(b) Outstanding Resource Values. In order to be classified as ORW, a water body must exhibit one or more of the following values or uses to demonstrate it is of exceptional state or national recreational or ecological significance:

- (1) there are outstanding fish (or commercially important aquatic species) habitat and fisheries;
- (2) there is an unusually high level of water-based recreation or the potential for such recreation;
- (3) the waters have already received some special designation such as a North Carolina or National Wild and Scenic River, Native or Special Native Trout Waters, National Wildlife Refuge, etc, which do not provide any water quality protection;
- (4) the waters represent an important component of a state or national park or forest; or
- (5) the waters are of special ecological or scientific significance such as habitat for rare or endangered species or as areas for research and education.

(c) Quality Standards for ORW

(1) Freshwater: Water quality conditions shall be maintained to protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site specific basis during the proceedings to classify waters as ORW. No new discharges or expansions of existing discharges shall be permitted, and stormwater controls for all new development activities requiring an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or an appropriate local erosion and sedimentation control program shall be required to follow the stormwater provisions as specified in 15A NCAC 02H .1000. Specific stormwater requirements for ORW areas are described in 15A NCAC 02H .1007.

(2) Saltwater: Water quality conditions shall be maintained to protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site-specific basis during the proceedings to classify waters as ORW. New development shall comply with the stormwater provisions as specified in 15A NCAC 02H .1000. Specific stormwater management requirements for saltwater ORWs are described in 15A NCAC 02H .1007. New non-discharge permits shall meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis. No dredge or fill activities shall be allowed if those activities would result in a reduction of the beds of submerged aquatic vegetation or a reduction of shellfish producing habitat as defined in 15A NCAC 03I .0101(b)(20)(A) and (B), except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the designated areas or maintenance dredging for activities such as agriculture. A public hearing is mandatory for any proposed permits to discharge to waters classified as ORW.

Additional actions to protect resource values shall be considered on a site specific basis during the proceedings to classify waters as ORW and shall be specified in Paragraph (e) of this Rule. These actions may include anything within the powers of the Commission. The Commission shall also consider local actions which have been taken to protect a water body in determining the appropriate state protection options. Descriptions of boundaries of waters classified as ORW are included in Paragraph (e) of this Rule

and in the Schedule of Classifications (15A NCAC 02B .0302 through 02B .0317) as specified for the appropriate river basin and shall also be described on maps maintained by the Division of Water Quality.

(d) Petition Process. Any person may petition the Commission to classify a surface water of the state as an ORW. The petition shall identify the exceptional resource value to be protected, address how the water body meets the general criteria in Paragraph (a) of this Rule, and the suggested actions to protect the resource values. The Commission may request additional supporting information from the petitioner. The Commission or its designee shall initiate public proceedings to classify waters as ORW or shall inform the petitioner that the waters do not meet the criteria for ORW with an explanation of the basis for this decision. The petition shall be sent to:

Director
DENR/Division of Water Quality
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

The envelope containing the petition shall clearly bear the notation: RULE-MAKING PETITION FOR ORW CLASSIFICATION.

(e) Listing of Waters Classified ORW with Specific Actions Waters classified as ORW with specific actions to protect exceptional resource values are listed as follows:

(1) Roosevelt Natural Area [White Oak River Basin, Index Nos. 20-36-9.5-(1) and 20-36-9.5-(2)] including all fresh and saline waters within the property boundaries of the natural area shall have only new development which complies with the low density option in the stormwater rules as specified in 15A NCAC 2H .1005(2)(a) within 575 feet of the Roosevelt Natural Area (if the development site naturally drains to the Roosevelt Natural Area).

(2) Chattooga River ORW Area (Little Tennessee River Basin and Savannah River Drainage Area): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section. However, expansions of existing discharges to these segments shall be allowed if there is no increase in pollutant loading:

- (A) North and South Fowler Creeks;
- (B) Green and Norton Mill Creeks;
- (C) Cane Creek;
- (D) Ammons Branch;
- (E) Glade Creek; and
- (F) Associated tributaries.

(3) Henry Fork ORW Area (Catawba River Basin): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section:

- (A) Ivy Creek;
- (B) Rock Creek; and
- (C) Associated tributaries.

(4) South Fork New and New Rivers ORW Area [New River Basin (Index Nos. 10-1-33.5 and 10)]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:

- (A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply to land within one mile of and that drains to the designated ORW areas;
- (B) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW shall be permitted such that the following water quality standards are maintained in the ORW segment:

- (i) the total volume of treated wastewater for all upstream discharges combined shall not exceed 50 percent of the total instream flow in the designated ORW under 7Q10 conditions, which are defined in Rule .0206(a)(1) of this Section;
- (ii) a safety factor shall be applied to any chemical allocation such that the effluent limitation for a specific chemical constituent shall be the more stringent of either the limitation allocated under design conditions (pursuant to 15A NCAC 02B .0206) for the normal standard at the point of discharge, or the limitation allocated under design conditions for one-half the normal standard at the upstream border of the ORW segment;

- (iii) a safety factor shall be applied to any discharge of complex wastewater (those containing or potentially containing toxicants) to protect for chronic toxicity in the ORW segment by setting the whole effluent toxicity limitation at the higher (more stringent) percentage effluent determined under design conditions (pursuant to 15A NCAC 02B .0206) for either the instream effluent concentration at the point of discharge or twice the effluent concentration calculated as if the discharge were at the upstream border of the ORW segment;
- (C) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW shall comply with the following:
 - (i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/1, and NH₃-N = 2 mg/1;
 - (ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/1 for trout waters and to 20 mg/1 for all other waters;
 - (iii) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;
 - (iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both.
- (5) Old Field Creek (New River Basin): the undesignated portion of Old Field Creek (from its source to Call Creek) shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section.
- (6) In the following designated waterbodies, no additional restrictions shall be placed on new or expanded marinas. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges. The Alligator River Area (Pasquotank River Basin) extending from the source of the Alligator River to the U.S. Highway 64 bridge including New Lake Fork, North West Fork Alligator River, Juniper Creek, Southwest Fork Alligator River, Scouts Bay, Gum Neck Creek, Georgia Bay, Winn Bay, Stumpy Creek Bay, Stumpy Creek, Swann Creek (Swann Creek Lake), Whipping Creek (Whipping Creek Lake), Grapevine Bay, Rattlesnake Bay, The Straits, The Frying Pan, Coopers Creek, Babbitt Bay, Goose Creek, Milltail Creek, Boat Bay, Sandy Ridge Gut (Sawyer Lake) and Second Creek, but excluding the Intracoastal Waterway (Pungo River-Alligator River Canal) and all other tributary streams and canals.
- (7) In the following designated waterbodies, the only type of new or expanded marina that shall be allowed shall be those marinas located in upland basin areas, or those with less than 10 slips, having no boats over 21 feet in length and no boats with heads. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges.
 - (A) The Northeast Swanquarter Bay Area including all waters northeast of a line from a point at Lat. 35E 23N 51O and Long. 76E 21N 02O thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point.
 - (B) The Neuse-Southeast Pamlico Sound Area (Southeast Pamlico Sound Section of the Southeast Pamlico, Core and Back Sound Area); (Neuse River Basin) including all waters within an area defined by a line extending from the southern shore of Ocracoke Inlet northwest to the Tar-Pamlico River and Neuse River basin boundary, then southwest to Ship Point.
 - (C) The Core Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin), including all waters of Core Sound and its tributaries, but excluding Nelson Bay, Little Port Branch and Atlantic Harbor at its mouth, and those tributaries of Jarrett Bay that are closed to shellfishing.
 - (D) The Western Bogue Sound Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from Bogue Inlet to the mainland at SR 1117 to a line across Bogue Sound from the southwest side of Gales Creek to Rock Point, including Taylor Bay and the Intracoastal Waterway.

- (E) The Stump Sound Area (Cape Fear River Basin) including all waters of Stump Sound and Alligator Bay from marker Number 17 to the western end of Permuda Island, but excluding Rogers Bay, the Kings Creek Restricted Area and Mill Creek.
- (F) The Topsail Sound and Middle Sound Area (Cape Fear River Basin) including all estuarine waters from New Topsail Inlet to Mason Inlet, including the Intracoastal Waterway and Howe Creek, but excluding Pages Creek and Futch Creek.
- (8) In the following designated waterbodies, no new or expanded NPDES permitted discharges and only new or expanded marinas with less than 10 slips, having no boats over 21 feet in length and no boats with heads shall be allowed.
- (A) The Swanquarter Bay and Juniper Bay Area (Tar-Pamlico River Basin) including all waters within a line beginning at Juniper Bay Point and running south and then west below Great Island, then northwest to Shell Point and including Shell Bay, Swanquarter and Juniper Bays and their tributaries, but excluding all waters northeast of a line from a point at Lat. 35E 23N 51O and Long. 76E 21N 02O thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point and also excluding the Blowout Canal, Hydeland Canal, Juniper Canal and Quarter Canal.
- (B) The Back Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin) including that area of Back Sound extending from Core Sound west along Shackleford Banks, then north to the western most point of Middle Marshes and along the northwest shore of Middle Marshes (to include all of Middle Marshes), then west to Rush Point on Harker's Island, and along the southern shore of Harker's Island back to Core Sound.
- (C) The Bear Island Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from the western most point on Bear Island to the northeast mouth of Goose Creek on the mainland, east to the southwest mouth of Queen Creek, then south to green marker No. 49, then northeast to the northern most point on Huggins Island, then southeast along the shoreline of Huggins Island to the southeastern most point of Huggins Island, then south to the northeastern most point on Dudley Island, then southwest along the shoreline of Dudley Island to the eastern tip of Bear Island.
- (D) The Masonboro Sound Area (Cape Fear River Basin) including all waters between the Barrier Islands and the mainland from Carolina Beach Inlet to Masonboro Inlet.
- (9) Black and South Rivers ORW Area (Cape Fear River Basin) [Index Nos. 18-68-(0.5), 18-68-(3.5), 18-68-(11.5), 18-68-12-(0.5), 18-68-12-(11.5), and 18-68-2]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:
- (A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply to land within one mile of and that drains to the designated ORW areas;
- (B) New or expanded NPDES permitted wastewater discharges located one mile upstream of the stream segments designated ORW (upstream on the designated mainstem and upstream into direct tributaries to the designated mainstem) shall comply with the following discharge restrictions:
- (i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/l and NH₃-N = 2 mg/l;
 - (ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 20 mg/l;
 - (iii) Emergency Requirements: Failsafe treatment designs shall be employed, including standby power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;
 - (iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both.
 - (v) Toxic substances: In cases where complex discharges (those containing or potentially containing toxicants) may be currently present in the discharge, a safety factor shall be applied to any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent shall be allocated at one-

half of the normal standard at design conditions. Whole effluent toxicity shall be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under flow design criteria (pursuant to 15A NCAC 02B .0206).

(10) Lake Waccamaw ORW Area (Lumber River Basin) [Index No. 15-2]: all undesignated waterbodies that are tributary to Lake Waccamaw shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section.

(11) Swift Creek and Sandy Creek ORW Area (Tar-Pamlico River Basin) [portion of Index No. 28-78-(0.5) and Index No. 28-78-1-(19)]: all undesignated waterbodies that drain to the designated waters shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section and to protect outstanding resource values found in the designated waters as well as in the undesignated waters that drain to the designated waters.

History Note: Authority G.S. 143-214.1;

Eff. October 1, 1995;

Amended Eff. August 1, 2003 (see S.L. 2003-433, s.2); August 1, 2000; April 1, 1996; January 1, 1996;

Temporary Amendment Eff. October 7, 2003;

Amended Eff. June 1, 2004.

Appendix 4

State of California State Water Resources Control Board

CWA §401 Water Quality Certification Program §401 PROGRAM SCOPE AND STRATEGY

December 19, 2002

The State's Water Quality Certification (WQC) Program was formally initiated in 1990 in response to the requirements of Clean Water Act (CWA) §401. Issuing WQC for discharges requiring U.S. Army Corps of Engineers' permits for fill and dredge discharges remains a core responsibility. But the Program has evolved into also being the State's *de facto* wetland protection and hydromodification regulation program.

This document clarifies the Program's scope, presents State and Regional Board staff's collective vision for a more effective Program, and articulates program goals and objectives. It directly guides the activities of the State Water Resource Control Board's (State Board's) WQC Unit and indirectly affects the programs of the Regional Water Quality Control Boards (Regional Boards).

The *Scope and Strategy* was reviewed and approved by the State/Regional Board Water Quality Certification Program Coordinating Committee (Corcom) at its August 1, 2001, November 7, 2001, and October 30, 2002 meetings and by the Regional Board Assistant Executive Officers at their November 18, 2002 meeting.

PROGRAM SCOPE

The scope of the WQC Program is defined by the mandates, discharge types, and receiving waters for which it has responsibility. These are listed below:

- Mandates
 - CWA §401
 - Porter-Cologne Water Quality Control Act
 - the State and federal "No Net Loss" Policies for wetland,
- Discharge types
 - Fill and dredged material
- Waters
 - All waters of the State, including wetlands, headwaters, and riparian areas.

There is substantial, but not complete, overlap among these responsibilities. Some program activities involve only one or two of them as diagrammed below:

WQC Program Scope

SPECIAL RESPONSIBILITIES

The WQC Program protects all the waters within its regulatory jurisdiction. However, the Program has special responsibilities in regard to some waterbody types and discharge impacts which are not systematically addressed by other State and Regional Board programs. These include:

Discharge:

Fill & Dredge

Waters:

e.g., Wetlands,
Headwaters & Riparian

Fill Only

e.g., SWANCC affected
waters other
than wetlands, riparian
or headwaters.

Wetland Only

e.g., Participation in So
Wetland Recovery
Program.

Mandate:

§401

The three overlapping circles represent overlapping areas of Program responsibility. Some Program activities involve only **ONE** of these responsibilities, as described in the text boxes above.

§401 Only

e.g., federal permit
other than §404; not
wetlands, headwaters,
or riparian.

Wetlands, Riparian Areas, and Headwaters

The WQC Program's jurisdiction over fill discharges puts it in the front line of protection for wetlands, riparian areas, and headwater streams. Regulatory attention to these waterbodies is necessitated by:

- the State and federal "No Net Loss" Policies for wetlands,
- the vulnerability of these waters to future impacts from projected population growth and land development in California¹,
- the high habitat value of these waters,
- the basin-wide value of these waters for pollutant removal, floodwater retention, channel stability, and habitat connectivity,
- the high number of special-status species associated with these waters and their associated habitats,
- the high level of public and legislative interest in these waters,
- the high percentage of historic losses of these waters in California,
- the absence of any other State or Regional Board program focusing on these waters.

Special-Status Species

The WQC Program's protection of wetlands, headwater streams, and riparian areas frequently involves protection of federal and/or State-listed special-status species (the RARE beneficial use), because many such species depend, directly and indirectly, on these waterbody types.

Hydromodification

The WQC Program's regulation of in-stream fill and excavation projects² frequently require attention to project-induced changes to channel form, flow regime, and sediment supply. The interaction among these three fundamental fluvial parameters creates the physical conditions which support habitat-dependent and other beneficial uses. Many projects affect these characteristics, resulting in flooding, bank erosion, and other adverse impacts to beneficial uses³ up- and down-stream. A frequent result are attempts to protect property through more such projects, eventually culminating in a nearly total loss of natural stream functions and beneficial uses ("the L.A. River syndrome"). In addition to in-stream projects, Regional Boards use WQC to regulate the hydromodification impacts of increased stormwater flows from upland developments.

Watershed-Level Impacts

In perhaps no other program is the need for basin-level analysis and protection so apparent. Project-specific regulation is essential, but cannot by itself assure the integrity of wetlands, riparian areas, and headwater streams⁴, especially given the population growth projected for California. Moreover, since these waters are disproportionately important in maintaining basinwide beneficial uses⁵, project-specific regulation alone will not achieve the goals of the State Board's *Strategic Plan*. The WQC Program is often operating at the expanding margin of the available skills and tools for managing watershed-level impacts.

¹ I.e., 15 percent population growth by 2010, 31 percent by 2020, 69 percent by 2040. State of California, Department of Finance, *County Population Projections with Age, Sex, and Race/Ethnic Detail*, December 1998

² E.g., channel reconfiguration, levees, bank hardening, abutments and piers, road and utility crossings, gravel mining, flood control excavation.

³ E.g., WARM, COLD, MIGR, SPAWN, WILD, RARE.

⁴ See for example, National Academy of Sciences, *Compensating for Wetland Losses Under the Clean Water Act*, Summer 2001.

⁵ See for example, Peterson et al, "Control of Nitrogen Export from Watersheds by Headwater Streams", *Science*, 292:86, April 6, 2001.

PROGRAM GOALS AND OBJECTIVES

The State Board's WQC Unit will pursue the three following goals as discussed below :

Goals:

1. Support the Regions' existing programs
2. Strengthen our watershed perspective
3. Improve the Program.

1. Support the Region's Existing Programs

Supporting and enhancing the Regions' programs is the paramount job of the WQC Unit. The Unit, with support from Office of Chief Counsel, will continue doing this through:

- **Training** - CEQA, wetland delineation, regulating specific types of discharges, functions and values of specific waterbody types, etc.,
- **Guidance** - compensatory mitigation standards, enforcement, evaluation protocols for specific project types, etc.,
- **Consultation** - responding to technical, legal, and administrative queries from the Regions,
- **Management** - overall coordination, budget augmentation proposals, contract management, program tracking and reporting.

In setting task priorities, the WQC Unit will consider (1) the Regions' preferences, (2) the feasibility of successfully completing the work with available resources, (3) the mandated activities specified for contract funds, and (4) the level of State Board management support.

The WQC Unit may also propose new or revised policy or regulation in response to changing circumstances (e.g., SWANCC).

2. Strengthen our Watershed Perspective

The current approach of the WQC Program is to protect waters on a project-by-project basis. As discussed above, strengthening our watershed perspective is also necessary. We will pursue the following objectives:

Objectives:

- develop ways to protect the basin-level functions of wetlands, headwater streams, and riparian areas, including pollutant removal, flood storage, and habitat-connectivity,
- systematically address the potential channel destabilizing effects of proposed projects,
- encourage low-impact project designs through complying with our CEQA responsibilities and otherwise outreaching to stakeholders,
- address cumulative impacts through complying with our CEQA responsibilities and by explore basin-level assessment methodologies,

- coordinate with other State and Regional Board programs, and with other agencies and stakeholders, in support of explicit watershed-level goals.

The WQC Unit will support the above elements by focusing training, guidance, technical support, consultation, and management support for the Regions' programs; through its direct regulation of multi-region projects; and by cultivating partnerships with related programs and external stakeholders.

3. Improve the Program

State and Regional Board staffs envision the following improvements to the WQC Program⁶ and have identified related objectives:

1. Programmatic:

- increase staff resources,
- improve monitoring and enforcement,
- promote regulatory streamlining (e.g., through general permits and certifications),
- improve inter-program communication⁷
- improve inter-agency coordinations⁸.

2. Technical:

Develop ability to systematically analyze and appropriately regulate the water quality impacts of:

- hydromodification,
- cumulative impacts,
- watershed-level impacts.

3. Regulatory:

More effectively:

- protect habitat, including in-stream, riparian, and corridor,
- protect recreation values,
- require, monitor, and enforce compensatory mitigation to achieve State no net loss/net gain goals,
- coordinate and integrate treatment and natural wetlands.

⁶ These ideas were developed and refined at the August 1, 2001 and November 7, 2001 meetings of the State/Regional Board Corcom.

⁷ Key programs include Stormwater, Nonpoint Source, Watershed Initiative, and (in some cases) TMDLs.

⁸ Key agencies are the Department of Fish and Game, Southern California Wetland Recovery Project, Bay Area Wetland Recovery Program, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service.

4. Outreach:

Conduct outreach to:

- a. achieve community awareness of watershed/water quality issues,
- b. encourage low-impact development designs, e.g., through the CEQA process.

IMPLEMENTATION

The principles presented in this document will inform our programmatic and project-specific decisions, including selection of contract projects, identification of needed training and technical support, and development of guidance. We will review this document annually and recommend changes as needed.

Appendix 5. IDAHO 401 GUIDANCE

1. INTRODUCTION

Section 401 of the federal Clean Water Act requires any applicant for a federal license or permit to conduct any activity which may result in a discharge into navigable waters to provide the licensing or permitting agency a certification from the state in which the discharge originates or will originate that the discharge will comply with applicable provisions of the Clean Water Act and state Water Quality Standards. This guidance document addresses 401 certification with respect to those federal licenses and permits that the Department of Health and Welfare, Division of Environmental Quality (DEQ) addresses the majority of the time: National Pollutant Discharge Elimination System (NPDES) permits issued by the federal Environmental Protection Agency (EPA), permits issued by the Army Corps of Engineers pursuant to section 404 of the Clean Water Act, and licenses for hydroelectric facilities issued by the Federal Energy Regulatory Commission (FERC). There may also be other permits and licenses for which DEQ must provide certification that are not addressed specifically by this guidance document.

Section 401 requires states to establish procedures for public notice in the case of all applications for certification and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications.

Section 401 provides that the state must act on a request for certification within a reasonable period of time, which cannot exceed one year, after receipt of the request, or the certification requirement shall be waived.

Federal agencies have further defined the “reasonable period of time” within which a state must make its 401 certification decision. For both NPDES permits and permits issued pursuant to section 404 of the Clean Water Act, states generally have sixty (60) days to provide certification decisions, unless the federal agency agrees a longer period of time for certification is warranted. For licenses issued by FERC, states have one year from the date the request for certification is received to provide certification.

With respect to NPDES and section 404 permits, notice that the state of Idaho will consider 401 certification is included within the federal notice regarding the permit. No such notice is provided with respect to FERC licenses.

DEQ is the agency designated in the state of Idaho to make 401 certification decisions. In the fiscal year 1998, DEQ reviewed 982 applications for certification and made 185 site visits pertaining to certification. Currently, the duties of this program are coordinated from the DEQ State Office and administered from six regional offices.

DEQ has set forth in this guidance document time frames and procedures it intends to follow with respect to most 401 certifications. Through the implementation of this guidance document, it is DEQ’s goal to ensure a consistent state-wide process that will

provide adequate public notice and an opportunity to comment with respect to DEQ's 401 certification decisions. The implementation of this process and the scope of public involvement as set forth in this document will depend upon the applicable federal requirements and time lines, DEQ resources, and the level of public involvement already provided by federal agencies. The success of implementing this guidance document will also depend upon the willingness of federal agencies, specifically EPA and the Army Corps of Engineers, to cooperate with DEQ and to allow adequate time for DEQ to provide independent public involvement. DEQ anticipates developing a memorandum of understanding or other inter-agency agreements to facilitate implementation of this guidance document.

This guidance document first sets forth guidance applicable to all the federal permits and licenses addressed by this document. Separate procedures and time lines for certification with respect to NPDES permits, FERC licenses and 404 permits are then described.

2. GUIDANCE APPLICABLE TO ALL FEDERAL PERMITS OR LICENSES

1. INFORMATION TO SUPPORT THE REQUEST FOR 401 CERTIFICATION

In order to make its 401 certification decision, DEQ must have adequate information. It is the obligation of the permit or license applicant to provide sufficient information that establishes there is a reasonable assurance that the discharge will comply with applicable provisions of the Clean Water Act and state Water Quality Standards. The required information will depend upon the circumstances and permit or license involved.

DEQ will work with applicants and the federal licensing or permitting agency in order to ensure the receipt of information relevant to the 401 certification decisions. In certain circumstances, it will be particularly important that the federal licensing or permitting agency provide DEQ with the basis for the limits and requirements set forth in the permit or license. For example, EPA should provide to DEQ the basis for water quality based effluent limits in NPDES permits.

2. DEQ 401 CERTIFICATION DECISION

Section 401 of the Clean Water Act allows DEQ to waive certification (either expressly or by operation of law), deny the certification, grant the certification, or grant the certification with conditions. If DEQ denies certification, the federal agency cannot issue the federal license or permit. Depending upon the circumstances and the applicable federal requirements and time lines, DEQ may deny the certification without prejudice, allowing the applicant to request certification again. As explained below, this may be appropriate when insufficient information is provided to allow DEQ to make its certification decision.

DEQ may grant certification with conditions. Pursuant to section 401(d), the certification may include any effluent limitations and other limitations and monitoring requirements necessary to ensure that the applicant for the federal license or permit will comply with

applicable sections of the Clean Water Act and state Water Quality Standards and with any other appropriate requirement of state law. Any such conditions shall become a condition on the federal license or permit.

With respect to NPDES permits, DEQ may also include in its certification a statement indicating the manner in which the permit can be made less stringent and still comply with state Water Quality Standards. This may include alternative limitations or requirements.

DEQ cannot provide certification unless it has sufficient information to establish there is a reasonable assurance the discharge will comply with state Water Quality Standards and the applicable sections of the Clean Water Act. DEQ will attempt to work with the federal agencies and applicants in order to receive adequate relevant information. However, DEQ may deny certification if such information is not provided in a timely manner. Under certain circumstances, and depending upon the federal time lines and requirements, the denial may be without prejudice allowing the applicant to develop additional information and reapply for certification. The applicant may withdraw the request for certification in order to develop additional information and then reapply for 401 certification, dependent upon federal restrictions.

DEQ's final decision regarding 401 certification may be appealed by the applicant or "other aggrieved person" pursuant to the Idaho Environmental Protection and Health Act, Idaho Code § 39-107(6) and the Idaho Administrative Procedure Act. Such an appeal is a prerequisite to any district court action and must be initiated by filing a petition for a contested case in accordance with the Rules Governing Contested Case Appeals and Declaratory Rulings (IDAPA 16.05.03) within thirty-five (35) days of the date of DEQ's decision regarding the 401 certification.

3. GUIDANCE FOR SPECIFIC PERMIT DECISIONS

1. NPDES PERMITS

1. Federal Regulations

The Clean Water Act regulations, 40 CFR § 124.53, provide that, if the state has not provided 401 certification by the time EPA issues its draft NPDES permit, EPA shall send the state a copy of the draft permit and a statement that the state will be deemed to have waived its right to certify unless that right is exercised within a specified reasonable time not to exceed sixty (60) days from the date the draft permit is mailed to the state, unless the EPA regional administrator finds that unusual circumstances require a longer time.

40 CFR § 124.53(e) provides that the state certification shall include:

- (1) conditions which are necessary to assure compliance with the applicable provisions of the Clean Water Act, state Water Quality Standards and appropriate requirements of state law;
- (2) any conditions more stringent than those in the draft permit which the state finds necessary to meet the requirements under the Clean Water Act or other appropriate state law; and
- (3) a statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of state law, including state Water Quality Standards. 40 CFR § 124.55(c) provides that a state may not condition or deny a certification on the grounds that state law allows a less stringent permit condition.

40 CFR § 124.55(d) provides that recertification may be required when a condition in a draft permit is changed in a manner that is not consistent with the certification provided by the state.

2. EPA Region 10 Current Practices

Pursuant to the discretion allowed the Regional Administrator under the Clean Water Act and the implementing regulations, EPA Region 10 has developed procedures it generally follows with respect to NPDES permits. Under EPA Region 10 current practices, EPA will provide DEQ with the application for the permit and, in some circumstances, a copy of a preliminary draft permit. DEQ may provide comments on the application or preliminary draft permit. EPA then issues a draft permit and a public notice that includes notice to the public that the state will consider 401 certification. After considering any public comments received, EPA then prepares a proposed final permit and provides this proposed final permit to DEQ for certification. DEQ typically is provided thirty (30) days from the date of receipt of the proposed final permit to provide certification. Subsequent to DEQ's certification decision, EPA will make its final decision regarding the permit and, when appropriate, issue the final permit.

3. DEQ's Certification Procedures

1. As indicated above, under EPA's Region 10 current practices, DEQ often receives information and a preliminary or proposed draft NPDES permit from EPA prior to the issuance of the draft permit. DEQ will request a continuation of this policy. DEQ may provide comments to EPA regarding the preliminary draft permit or the permit application.
2. EPA will issue a draft NPDES permit. EPA is required to publish notice to the public and an opportunity for the public to comment on the draft permit. The public comment period is a minimum of thirty (30) days. The notice published by EPA Region 10 also notifies the public that DEQ will consider 401 certification. DEQ will request EPA continue this practice. DEQ will also request EPA include in its notice a statement regarding the opportunity to request notice of DEQ's preliminary 401 certification decision and the opportunity to comment on that decision as described below.

3. DEQ intends to provide the public with the opportunity to review and comment on preliminary 401 certification decisions. Within thirty (30) days of the issuance of the draft NPDES permit, any person may request in writing that DEQ provide that person notice of DEQ's preliminary 401 certification decision, including, where appropriate, the draft certification. Within thirty (30) days of the receipt of such a request, DEQ will provide to the requesting party notice of DEQ's preliminary 401 certification decision, including any draft 401 certification, based upon DEQ's review of the draft NPDES permit. DEQ will allow a thirty (30) day period from the date of its preliminary decision in which it will receive comments on the draft decision.

4. A public hearing for the NPDES permit may also be provided. DEQ may coordinate with EPA so that a public hearing addresses both permit and certification issues.

5. DEQ will, after considering any comments on its preliminary 401 decision, issue its final 401 certification decision. DEQ will provide notice regarding the final decision. If EPA agrees to continue its current practice of providing DEQ with a proposed final permit that has been prepared after consideration of public comments on the draft permit, then DEQ's certification will be based upon the proposed final permit. If DEQ is not provided with a proposed final permit, then DEQ will provide its final certification decision based upon the draft permit. In the event the final NPDES permit is inconsistent with the state certification, DEQ shall require EPA submit the permit for recertification. The process described above will depend upon coordination and agreement with EPA Region 10 NPDES permit staff. DEQ will not be able to implement this procedure unless EPA allows DEQ sufficient time to issue a draft 401 decision and receive comments on that decision prior to the expiration of the deadline for 401 certification. DEQ may request an extension of the 401 certification period from EPA in order to implement this guidance.

2. FERC RELICENSING

1. Federal Law and Regulations

The Federal Energy Regulatory Commission (FERC) generally has authority to license non-federal hydroelectric projects located on navigable waters. Because such facilities include a discharge to surface water, a 401 certification is required for the issuance of the FERC license.

Most hydroelectric projects in the United States are operating under their original license that was issued for a period of fifty (50) years. In order to operate beyond the original license period, the facility must obtain a new license from FERC. A number of facilities in Idaho are in or soon will be in the process of obtaining such a new license.

The relicensing process traditionally involves three stages of consultation activities. The third stage of consultation is initiated by the filing of an application for a new license. 18 CFR § 16.8(d)(1). At this time, the applicant must provide FERC with either: (a) a copy of the state's 401 water quality certification; (b) a copy of the request for certification,

including proof of the date on which the certifying agency received the request; or (c) evidence of waiver of certification. 18 CFR § 16.8(f)(7).

A state is deemed to have waived the certification requirements if the state has not granted or denied certification by one year after the date the state received a written request for certification. 18 CFR § 16.8(f)(7)(ii).

Any amendment to an application for a license requires a new requirement for certification if the amendment would have a material adverse impact on the water quality as result of the discharge from the project. 18 CFR § 16.8(f)(7)(iii).

FERC provides no specific notice to the public that the state is considering 401 certification.

2. DEQ 401 Certification Procedures

1. Within a reasonable time after receiving a request for certification regarding a hydroelectric facility license (normally within thirty (30) days), DEQ shall provide notice to the public regarding the receipt of the request. The notice shall be provided by: (a) mailing copies of the notice to interveners in the FERC proceedings and other interested parties identified through the FERC consultation process; and (b) publishing notice in a newspaper in the manner provided for like public notices under Idaho law. If publishing notice in a newspaper is determined to be impractical, DEQ shall use other means that provide reasonable notice to the affected public.

2. The notice will also indicate the time lines for DEQ to issue a draft certification decision, for public comment and the opportunity to request a hearing as set forth below. The notice shall also indicate where documents relating to the license and 401 certification can be reviewed by the public.

3. Ninety (90) days prior to the date DEQ must provide its certification (DEQ certification must be provided within one year of receipt of the request for the certification), DEQ shall provide notice to the public that it has made its preliminary decision regarding the 401 certification. If DEQ's decision is to issue 401 certification, a copy of the draft certification may be obtained upon request from DEQ. The notice will be provided to the public in the manner described in paragraph a above. The notice will describe the public's opportunity for comment and the right to a hearing as described in paragraph d below.

4. The public may provide written comments to DEQ regarding the 401 certification. The comment period shall extend for forty-five (45) days after the date DEQ issues notice of its preliminary decision. Within fifteen (15) days of the date of notice of the preliminary decision, any person may request a public hearing or meeting in order to submit oral comments to DEQ. If DEQ determines a public hearing or meeting is appropriate, the meeting or hearing shall be held within the forty-five (45) day comment period, unless a later date is warranted.

5. DEQ will issue its final decision regarding the 401 certification within one year of the date DEQ received the request for certification. DEQ will provide notice to those parties that commented on the preliminary decision regarding its final decision.

3. INDIVIDUAL 404 PERMITS

1. Federal Law and Regulations

Section 404 of the Clean Water Act provides authority to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands. This authority is implemented by the Army Corps of Engineers (Corps).

Federal regulations require the Corps make a determination regarding whether an application for a 404 permit is complete. 33 CFR § 325.1(d)(9); 33 CFR § 325.2(a)(2). The Corps issues public notice of the receipt of a complete application. 33 CFR § 325.2(a)(2). If the activity requires a 401 certification, the public notice must include a statement concerning the 401 certification requirements. 33 CFR § 325.2(b); 33 CFR § 325.3(a)(8).

If 401 certification is required, the Corps' district engineer shall notify the applicant that 401 certification is necessary. 33 CFR § 325.2(b)(1). The certification requirement will be deemed waived if the state does not act on the 401 certification request within sixty (60) days of its receipt, unless the Corps determines a shorter or longer period is reasonable for the state to act. If a longer period of time is determined reasonable, based upon information provided by the state, the Corps may allow a longer period of time to certify, not to exceed one year. 33 CFR § 325.2(b)(1)(ii).

With respect to Corps activities for the discharge of dredged or fill material, the public notice regarding the activity constitutes the request to the state for 401 certification. 33 CFR § 336.1(b)(8).

2. DEQ Procedures

1. The public notice regarding the 404 permit application or Corps activities includes notice to the public regarding the state's 401 certification. DEQ shall request the Corps additionally include, in its state of Idaho notice, a statement regarding the opportunity to request notice of the state's preliminary 401 certification decision and the opportunity to comment as described below.

2. Within thirty (30) days of the public notice regarding the 404 permit, any person may request in writing that DEQ provide that person notice of DEQ's preliminary 401 certification decision. If DEQ receives such a request, then DEQ shall request the Corps allow DEQ additional time within which to make its certification decision in order to accommodate the review of a draft 401 decision. If the Corps grants DEQ's request, DEQ shall, within thirty (30) days of receipt of the applicant's request for certification,

or a longer time if necessary and allowed by the Corps, provide notice to the requesting party regarding DEQ's preliminary 401 certification decision, including any draft certification. DEQ shall receive written comments regarding the preliminary decision for a thirty (30) day period from the date of the notice of the preliminary decision.

3. DEQ shall, after considering any public comments received, provide its final decision regarding 401 certification. DEQ shall provide notice of its final decision. The process described above will depend upon coordination and agreement with the Corps. If the Corps declines to provide an extension for 401 certification as described herein, DEQ shall issue its final 401 certification within the time provided, without any independent public notice or opportunity for comment.

THIS DOCUMENT IS INTENDED TO IMPROVE INTERNAL MANAGEMENT OF DEQ AND TO ASSIST IN MAINTAINING A CONSISTENT STATE-WIDE APPROACH TO 401 CERTIFICATION. THIS DOCUMENT DOES NOT CREATE A RIGHT OR BENEFIT, SUBSTANTIVE OR PROCEDURAL, ENFORCEABLE AT LAW OR EQUITY BY ANY PARTY VS. DEQ, ITS EMPLOYEES OR ANY OTHER PERSON.

Appendix 6. State of Ohio EPA

SECTION 401 WATER QUALITY CERTIFICATION APPLICATION PRIMER

August 1998

Purpose: The following primer was prepared by staff in the Section 401/Wetland Unit of Ohio EPA's Division of Surface Water to provide applicants with information that may be helpful in completing Ohio EPA's Section 401 Water Quality Certification application (revised July 1998).

Format: This primer is meant to be used in conjunction with Ohio EPA's Section 401 Water Quality Certification application (revised August 1998). When completing an application, you should use this primer as a guide. The information in this primer is listed in the same order as the questions on the 401 application. Following each number is a list of topics that Ohio EPA requires to be addressed in that section, and a brief explanation of the kind of information that section should include. Please respond to each question **in the order and format below**. If a particular point does not apply to your project, state 'not applicable' and include an explanation.

Public notice: Once Ohio EPA receives a complete Section 401 application and Corps of Engineers Public Notice (when applicable), it will publish a public notice of the receipt of a complete application and a 30-day comment period. If, during this comment period, Ohio EPA receives a significant number of requests for a public hearing, the hearing will be scheduled and a second public notice will be published giving at least 45 days prior notice of the hearing.

A public notice for a complete Section 401 application can only be published after Ohio EPA has received:

- Army Corps of Engineers notification on the project (when applicable)
- Complete 401 application package

Certification time frame: Ohio EPA's goal is to take an action on Water Quality Certifications within 60 - 180 days of receipt of a **complete application**.

Definitions:

IBI (Index of Biotic Integrity) - Metrics that assess fish community attributes that are presumed to correlate (either positively or negatively) with biotic integrity.

ICI (Invertebrate Community Index) - Used by Ohio EPA as the principle measure of the overall macro invertebrate community condition.

Jurisdictional wetland - any area that has the appropriate hydrology, soils and plants to meet wetland criteria as defined in the 1987 Army Corps of Engineers' Wetlands Delineation Manual.

Ordinary High Water Mark (OHWM) - Defined by the Army Corps of Engineers (ACOE) as that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (The ACOE is the final arbitrator in determining the OHWM).

QHEI (Qualitative Habitat Evaluation Index) - Index designed to provide a measure of habitat that generally corresponds to those physical factors affecting fish communities and which are generally important to other aquatic life (e.g. invertebrates).

Water quality - Water quality refers to the physical, chemical and biological integrity of any waters of the state.

401 Application question numbers and information needed:

(Note: Questions #1- #9 and #11 should be completed on the application form. Question #10 should be completed on separate sheets).

1) Complete appropriate information as requested.

2) Leave Blank

3) Applicant information

- **Applicant's name and complete street address** is required.
- Ohio EPA cannot accept a P.O. Box as the mailing address.
- Phone numbers are required.

3a) Applicant's legal **signature** and **date** are required.

4) If you have hired an agent to act on your behalf:

- **Agent's name and complete street address** is also required.
- Ohio EPA cannot accept a P.O. Box as the mailing address.
- Phone numbers are required.

4a) Applicant must sign to allow agent to act on their behalf.

5) Give the **project address** or closest point of reference. Also indicate the watershed where the impact is to occur, if known, from the 1988 State of Ohio Hydrologic Unit Map, a copy of which appears in Ohio EPA's *Wetland Water Quality Standards*.

6) If answer is no:

- No further response is needed.

If answer is yes, provide the following:

- Give date the project was started.
- Give date the project was completed/stopped.

- Submit drawings (to scale) and description of work completed.
- Was an order to cease work issued by the Army Corps of Engineers?
- If so, include a copy of cease and desist order with your application.

7) List all approvals needed to complete your project and their status, such as:

Army Corps of Engineers

Individual Section 404 permit

Nationwide permit

Ohio EPA

Storm water Permits

Permit to install (PTI)

National Pollutant Discharge Elimination System permit (NPDES)

Ohio Department of Natural Resources

Dam permits

Mining permits

Coastal Zone Management (CZM)

Federal Emergency Management Authority (FEMA)

Other

8a) Give a brief explanation of **what** you are proposing to do.

8b) Give a brief explanation of **why** you are proposing to do the project.

8c) Cubic yards

- Give the number of cubic yards and type of material proposed to be **removed** from below the OHWM or from a jurisdictional wetland.
- Give the number of cubic yards and type of material proposed to be **placed** below the OHWM or within a jurisdictional wetland.
- Give the **total** number of cubic yards of material proposed to be both removed and placed below the OHWM or within a jurisdictional wetland.

9) Surface water name & location

- Give the **name(s)** of each stream, lake and/or wetland proposed to be affected by the project.
- Give the **location** of each water body listed above.
- Give the name(s) and location(s) of adjacent and/or receiving waters.
- Give the linear footage of each stream proposed to be impacted by the project.
- Give the acreage of each wetland proposed to be impacted by the project.

10) ALTERNATIVES ANALYSIS

Definitions:

Preferred Design

The project you are submitting for approval.

Minimal Degradation Alternative(s)

Less environmentally-damaging or scaled-down version(s) of the project that would result in **less damage** to surface water quality and still meet your project goals.

Non-Degradation Alternative(s)

Less environmentally-damaging, further scaled-down version(s) or revision of the project that would result in **no damage** to surface water quality (no material removed or placed below OHWM). If the project must be located entirely within water (water-dependent) to fulfill the basic project purpose, this alternative may be considered to be a no-build alternative. However, if the final project purpose requires a land base, this is not a water dependent project, and an alternative other than a no-build alternative must be proposed.

Format: You should first give a brief description of each alternative. **Questions 10a - 10k must be answered for each alternative.** The following format is recommended:

EXAMPLE : a) Provide a description . . . for:

The Preferred Alternative

The Minimal-Degradation Alternative(s)

The Non-Degradation Alternative(s)

b) Describe the magnitude of the proposed water quality. . . for:

The Preferred Alternative

The Minimal Degradation Alternative(s)

The Non-Degradation Alternative(s)

And so on, until letters a - k have been addressed

10a) Detailed project description**Construction details for each alternative**

- Describe project in detail.
- Submit maps and plans of site showing the present extent and type of vegetative cover, all surface waters and all proposed changes to site (to scale), including a well defined map of the construction limits of the project.
- Submit original topographic map of area (or identify the site on a specific quadrangle).
- Submit cross-sectional drawings of the project.

Description of fill material to be placed

- Give cubic yards to be placed below the OHWM or within jurisdictional wetlands.

- Describe all types of fill material to be placed below the OHWM or within jurisdictional wetlands, including rock types and sizes.
- Identify origin of the fill material to be placed.

Description of dredge material to be removed

- Give cubic yards to be removed below OHWM or from jurisdictional wetlands.
- Submit particle size analysis as required.
- Submit chemical constituent sampling as required.
- Describe the dredge spoil disposal location and identify it on a scaled plan or map.

10b) Biological and physical impacts

- How will your project adversely impact animal life (including sport and recreational fishes).
- How will your project adversely impact plant life.
- How will your project adversely impact rare, threatened and endangered plants and animals. (Include written comments from the Ohio Department of Natural Resources, and the U.S. Fish and Wildlife Service).
- How will your project adversely impact aquatic habitat and physical characteristics of the water body and adjacent areas.
- How will your project adversely impact flow patterns of surface water if applicable.

Wetlands

- Describe type of wetland (forested, emergent, etc.).
- Describe category (Category I, II or III) for each wetland to be impacted. Include a discussion of the functional assessment tool used and the rationale for placing the wetlands in the selected categories (See Wetland Water Quality Standards on Ohio EPA's web site or call 614/644-2001.)
- Give individual and total wetland acreage on site.
- Give individual and total wetland acreage to be impacted.
- Describe proximity/location of each wetland in relation to other surface waters.
- Include wetland delineation report.
- Demonstrate that the storm water post-construction runoff rate will not exceed the pre-construction runoff rate and that water quality will either be unaffected or improve.

Streams

- Give name of each stream to be impacted and each receiving stream.
- Give water quality use designation for each stream (See OAC 3745-1 on Ohio EPA's web site or call 614/644-2001).
- Describe type, age and width of vegetation adjacent to watercourse(s).

- Give individual and total lineal feet of stream on site.
- Give individual and total lineal feet to be impacted on site.
- Describe proximity/location of each watercourse in relation to other surface waters.
- Submit QHEI forms (must be conducted by an Ohio EPA approved technician).

Lakes/Ponds

- Give name of each water body.
- Describe and give name of each stream flowing in or out of each water body.
- Describe type, age and width of vegetation adjacent to each water body.
- Describe adjacent land uses.

Photographs

- Submit numbered photographs of all surface water areas and all associated vegetative buffers to be impacted, including photographs of directly adjacent land.
- Include reference map showing photo locations and directional arrows.

Describe present and proposed adjacent land uses, to the extent known.

NOTE: The following information may also be requested by Ohio EPA:

- Qualitative Habitat Evaluation Index (QHEI) sheets
- Index of Biotic Integrity (IBI) data
- Index of Community Integrity (ICI) data

10c) Applicant's project costs

Cost effectiveness

- Itemize the anticipated costs to construct each alternative.
- Itemize the anticipated economic profits or losses for each alternative.

Availability

- Is the technology available to complete the project/alternative as proposed, or is it theoretical or unproven?

Reliability / operation maintenance difficulty

- What is the anticipated life of the project and will it need repairing?
- Are the aspects of the project and the alternatives which are designed to address water quality impacts associated with the project, reliable and dependable?

10d) Sewage projects

Is the project a regional or part of a regional sewer and collection facility? If so, discuss the following in same manner as in 10 c):

- Describe the technical feasibility of the project.
- Describe the cost Effectiveness of the project.
- Describe the availability of the project.
- Include long range plans in state or local water quality management planning documents and applicable facility planning documents.

10e) Other related projects

- Check with local and regional agencies and groups to develop a list of any environmental or recreational improvement projects targeted for the affected surface water.
- List any projects or development other than your proposed project targeted for the local region.

10f) Water pollution controls

- Describe best management practices to be used. This may include, but is not limited to, erosion and turbidity controls and their costs.
- Describe other water pollution controls, including water treatment works or other aspects incorporated into the project to treat, reduce or eliminate water pollution generated as a result of implementation of the project.

10g) Human health impacts

- Describe how the lowering of water quality may affect human health.
- Describe impacts to overall quality of the water resource.

10h) Jobs created and revenues gained

- Include the number of jobs to be created (directly and indirectly) by the project.
- Include state and local tax revenues to be generated.
- Give a brief description of the local economy (i.e. median household income, poverty rates, population growth, unemployment, etc.).
- Discuss the potential direct and indirect increases in property values due to the proposed project.
- Discuss the positive impacts on the recreational and commercial opportunities of the water resource, including tourism.
- Discuss businesses that will be positively impacted by the proposed project.
- Give a brief discussion regarding the positive aesthetics of the proposed project.

10i) Jobs and revenues lost - Social and Economic Benefits Lost

- Include the number of jobs to be lost (directly and indirectly) due to the project.
- Include state and local tax revenues to be lost.
- Give a brief description of the local economy (i.e. median household income, poverty rates, population growth, unemployment, etc.)

- Discuss the proposed direct and indirect lowering of property values due to the proposed project.
- Discuss the negative impacts on the recreational and commercial opportunities of the water resource, including tourism.
- Discuss businesses that will be negatively impacted by the proposed project.
- Give a brief discussion regarding the negative aesthetics of the proposed project.

10j) Environmental benefits lost or gained

Including but not limited to:

- How will each stream's natural sediment-moving capabilities be affected?
- How will each wetland's pollutant filtering capability be affected?
- Include a discussion of how any losses will be mitigated.

10k) Mitigation Techniques* (Does not apply to the Non-Degradation Alternative)

*These are proposed techniques that will be incorporated into the project that will offset or compensate for any water quality impacts. Mitigation must be proposed for impacts to any surface water.

NOTE: There must be a mitigative technique referenced for the preferred design and each minimal degradation alternative you have submitted. No mitigative technique is required for the non-degradation alternative.

Wetland Mitigation:

Note: Wetlands should replace wetlands (in-kind). Ponds are not wetlands and should not be proposed as mitigation for wetland impacts.

- Describe where the mitigation is proposed. Locate the mitigation site and the impact site on a quadrangle.
- The mitigation acreage ratio must conform to the requirements in OAC 3745-1-54 (F)(1).
- Develop a scaled plan (preferably with 6 inch contours) and sections to illustrate the size, shape, and depth variation of the proposed mitigation.
- Describe the source of hydrology and demonstrate that there will be sufficient water to sustain the wetland mitigation in perpetuity.
- Describe the soil type in the mitigation area and if soil amendments will be necessary.
- Describe how and what vegetation will be established.
- Describe when the mitigation will be constructed and completed.
- Describe Best Management Practices to be used. This may include, but is not limited to, erosion and turbidity control.

- Describe how the mitigation will be monitored, and who will be conducting the monitoring. Monitoring must be conducted for at least 5 years.
- Describe how water quality functions will be replaced on-site.
- Identify who will manage the mitigation area, who will retain ownership, and how the mitigation area will be protected in perpetuity.
- Describe a contingency plan in case the mitigation fails, including a time frame for remediation.

Stream, Lake, Pond Mitigation:

- Describe where the mitigation is proposed. Locate the mitigation site and the impact site on a U.S.G.S. quadrangle.
- Develop a scaled plan and sections and specifications to illustrate the size/length, shape, and depth variation of the proposed mitigation.
- Describe habitat restoration or enhancement proposed. Demonstrate that there will be no elimination or substantial impairment of existing in-stream water uses as part of this project (OAC 3745-1-05 (c)(1)).
- Describe Best Management Practices to be used. This may include, but is not limited to, velocity reduction structures, erosion control methods, and turbidity controls.
- Develop a monitoring plan that will focus on the re-establishment of habitat and other water quality functions. Identify who will be conducting the monitoring. For streams, proposed Qualitative Habitat Evaluation Index scores or biological indices may be included.
- Describe a contingency plan in case the mitigation fails, including a time frame for remediation.

11. Either the applicant or designated agent must **sign and date the application**. The original application, signed and dated must be submitted to Ohio EPA.

Appendix 7

North Carolina Division of Water Quality Water Quality Certification Rules (15A NCAC 2H .0500)

SECTION .0500 - WATER QUALITY CERTIFICATION

15A NCAC 02H .0501 PURPOSE

(a) The provisions of this Section shall apply to all division regulatory, planning, resource management, liaison and financial aid determinations that affect surface waters and wetlands as defined by 15A NCAC 2B .0202. This Section shall only apply to specific activities which require state review after the effective date of this Rule and which require a Division determination concerning effects on surface waters or wetlands. Activities that are described in Section 404(f)(1)(A)-(F) of the Clean Water Act (33 U.S.C. 1344) are exempt from this Rule.

(b) These Rules outline the application and review procedures for activities that require water quality certifications (certifications) pursuant to Section 401 of the Clean Water Act (33 U.S.C. 1341).

Certifications are required whenever construction or operation of facilities will result in a discharge into navigable waters as described in 33 CFR Part 323. The federal definition of navigable waters includes wetlands as defined at 33 CFR 328.3 and 40 CFR 230.3.

(c) Certifications may be issued for individual activities (individual certifications) or issued for specific types or groups of activities (general certifications):

- (1) Individual certifications are issued on a case-by-case basis and the procedures outlined in the following Rules are required for each individual certification.
- (2) General certifications are issued for specific types or groups of activities that are similar in nature and considered to have minimal impact. The application and review procedures for requesting concurrence from the Division that the general certification can be used for the proposed activity are the same as the procedures outlined in the following Rules for individual certifications unless specifically stated otherwise in the general certification.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c); 143B-282(1)(u);

RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;

Eff. October 1, 1996.

15A NCAC 02H .0502 APPLICATION

(a) Application for Certification. Any person, as defined in Article 21, Chapter 143, North Carolina General Statutes, desiring issuance of the state certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act as amended shall file with the Director of the North Carolina Division of Water Quality (director), at the office in Raleigh, North Carolina, an original and six copies of an application for certification. Submission of an application to the Division of Coastal Management for permits to develop in North Carolina's coastal area shall suffice as an application for certification. The application shall specify:

- (1) the date of application;
- (2) the name, address, and phone number of the property owner;
- (3) if the applicant is a corporation, the state in which it is domesticated, the name of its principal officers, the name and address of the North Carolina process agency, and the name of the individual who shall be primarily responsible for the conduct of the activity for which certification is sought;
- (4) the nature of the activity to be conducted by applicant;
- (5) whether the discharge has occurred or is proposed;
- (6) the location of the discharge, stating the municipality, if applicable; the county; the drainage basin; the name of the receiving waters; and the location of the point of discharge with regard to the receiving waters;
- (7) a description of the receiving waters, including type (creek, river, swamp, canal, lake, pond or estuary) if applicable; nature (fresh, brackish or salt); and wetland classification;
- (8) description of the type of waste treatment facilities if applicable.

(b) Maps. There shall be attached to the application a map(s) or sketch(es) of sufficient detail to accurately delineate the boundaries of the lands owned or to be utilized by the applicant in carrying out its activity; the location, dimensions and type of any structures erected or to be erected on said lands for use in connection with the activity; and the location and extent of the receiving waters including wetlands within the boundaries of said lands.

(c) Power to Request Additional Information. The Director may request, and the applicant shall furnish, any additional information that may be found necessary for the proper consideration of the application.

(d) Omissions From Applications. If the applicant considers that it is not feasible or is unnecessary to furnish any portion of the information required by Paragraphs (a) and (b) of this Rule, applicant shall submit a detailed statement explaining the reasons for omission of any such information.

(e) Investigations. The staff of the Department of Environment, Health, and Natural Resources (department) shall conduct such investigation as the Director deems necessary; and applicant shall cooperate in the investigation to the extent that it shall furnish necessary information, allow the staff safe access to the lands and facilities of the applicant and lend such assistance as shall be reasonable.

(f) Who Must Sign Applications. The application shall be considered a "valid application" only if the application bears the signature of a responsible officer of the company, municipal official, partner or owner. This signature certifies that the applicant has title to the property, has been authorized by the owner to apply for certification or is a public entity and has the power of eminent domain. Said official in signing the application shall also certify that all information contained therein or in support thereof is true and correct to the best of his knowledge.

(g) An application form may be obtained from the Division of Water Quality, the Division of Coastal Management, or the U.S. Army Corps of Engineers, Wilmington District, Regulatory Branch.

History Note: Authority G.S. 143-215.3(a)(1); 143-215(c); 143B-282(1)(u);

Eff. February 1, 1976;

Amended Eff. December 1, 1984; January 1, 1979;

RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;

Recodified from 15A NCAC 2H .0501 Eff. October 1, 1996;

Amended Eff. October 1, 1996.

15A NCAC 02H .0503 PUBLIC NOTICE

(a) Notice by Publication. Notice of each pending application for an individual certification shall be published one time in a newspaper having general circulation in the county in which the discharge will occur, or as provided in Paragraph (c) of this Rule. Publication shall be made at least 15 days prior to proposed final action by the Director upon the application and not more than 20 days after acceptance of a completed application.

(b) Contents of Notice. The notice shall set forth the name and address of the applicant; the action requested in the application; the nature and location of the discharge; and the proposed date of final action to be taken by the Director upon the application. The notice shall also state that additional information is on file with the department and may be inspected at any time during normal working hours. Copies of such information on file shall be made available upon request and upon payment of the cost thereof to the department.

(c) The public notice requirement may also be satisfied by a joint notice with the Division of Coastal Management (15A NCAC 7J .0206) or the U.S. Army Corps of Engineers according to their established procedures.

(d) Notice of Hearing. If the Director determines that a hearing should be held concerning the granting or denial of the application, the Director shall publish notice of the hearing one time in a newspaper having general circulation in the county in which the discharge will occur. The notice shall be published at least 30 days prior to the date of the hearing. The notice shall state the time, place and nature of the hearing.

(e) Water Quality Certification Mailing List. Any person, may request that he or she be mailed copies of all public notices required by this Rule. The Director shall add the name of any such person to a water quality certification mailing list and shall mail copies of notices to all persons on the list.

(f) Payment of Costs of Public Notice. The applicant shall pay to the department the costs of advertising public notice required by Paragraphs (a) and (d) of this Rule. Certification shall be withheld until such costs have been paid.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c); 143B-282(1)(u);

Eff. February 1, 1976;

Amended Eff. December 1, 1984; September 1, 1984
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Recodified from 15A NCAC 2H .0502 Eff. October 1, 1996;
Amended Eff. October 1, 1996.

15A NCAC 02H .0504 HEARING

(a) Public Hearing on Certification. If the Director determines that it is in the public interest that a public hearing for the purpose of reviewing public comment and additional information be held prior to granting or denying certification, the Director shall so notify the applicant by registered or certified mail, return receipt requested, and shall publish and give notice as required in Rule .0503(d) and (e) of this Section. Such hearing shall be held within 90 days following date of notification. The record of each hearing held under this Paragraph shall remain open for a period of 30 days.

(b) Hearing for Applicant Upon Certification Denial. An applicant whose certification is denied or granted subject to unacceptable conditions, shall have the right to a contested case hearing pursuant to the provisions of G.S. 150B-23.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c); 143B-282(1)(u);
Eff. February 1, 1976;

Amended Eff. July 1, 1988; December 1, 1984;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Recodified from 15A NCAC 2H .0503 Eff. October 1, 1996;
Amended Eff. October 1, 1996.

15A NCAC 02H .0505 DELEGATIONS

History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c);
Eff. February 1, 1976;
Repealed Eff. December 1, 1984.

15A NCAC 02H .0506 REVIEW OF APPLICATIONS

(a) In evaluating requests for certification based on the procedures outlined in Paragraphs (b) through (e) of this Rule, the Director shall determine if the proposed activity has the potential to remove or degrade those significant existing uses which are present in the wetland or surface water. Activities which would not remove or degrade existing uses shall be reviewed according to the procedures found in Subparagraph (c)(2)-(5) of this Rule. Those activities covered by general certifications [15A NCAC 2H .0501(c)(2)] which do not require written concurrence from the Division shall be deemed certified if the conditions of the certification are followed and may proceed without the review procedures outlined in Paragraphs (b) through (e) of this Rule. An applicant may also demonstrate that designated uses are not present at a particular site using a wetland evaluation procedure approved by the Director according to the criteria found in 15A NCAC 2B .0103(c); otherwise the designated uses as outlined at 15A NCAC 2B .0231(a)(1)-(6) are assumed to exist in all classes of wetlands, and the appropriate review procedures shall be undertaken. Certification shall be issued where the Director determines water quality standards are met, including protection of existing uses.

(b) The Director shall issue a certification upon determining that existing uses are not removed or degraded by a discharge to classified surface waters for an activity which:

- (1) has no practical alternative under the criteria outlined in Paragraph (f) of this Rule;
- (2) will minimize adverse impacts to the surface waters based on consideration of existing topography, vegetation, fish and wildlife resources, and hydrological conditions under the criteria outlined in Paragraph (g) of this Rule;
- (3) does not result in the degradation of groundwaters or surface waters;
- (4) does not result in cumulative impacts, based upon past or reasonably anticipated future impacts, that cause or will cause a violation of downstream water quality standards;
- (5) provides for protection of downstream water quality standards through the use of on-site stormwater control measures; and
- (6) provides for replacement of existing uses through mitigation as described at Subparagraphs (h)(1) of this Rule.

(c) The Director shall issue a certification upon determining that sufficient existing uses are not removed or degraded by a discharge to Class WL wetlands as defined at 15A NCAC 2B .0101(c)(8), for an activity which:

- (1) has no practical alternative as described in Paragraph (f) of this Rule, or impacts less than three acres of Class WL wetlands;
- (2) will minimize adverse impacts to the wetland based on consideration of existing topography, vegetation, fish and wildlife resources, and hydrological conditions under the criteria outlined in Paragraph (g) of this Rule; or impacts less than one acre of wetland within 150 feet (including less than 1/3 acre of wetland within 50 feet), of the mean high water line or normal water level of any perennial or intermittent water body as shown by the most recently published version of the United State Geological Survey 1:24,000 (7.5 minute) scale topographical map or other site specific data;
- (3) does not result in the degradation of groundwaters or surface waters;
- (4) does not result in cumulative impacts, based upon past or reasonably anticipated future impacts, that cause or will cause a violation of downstream water quality standards;
- (5) provides protection for downstream water quality standards through the use of on-site stormwater control measures; and
- (6) provides for replacement of existing uses through wetland mitigation under U.S. Army Corps of Engineers requirements or as described in Subparagraph (h)(1)-(8) of this Rule.

(d) The Director shall issue a certification upon determining that significant existing uses are not removed or degraded by a discharge to Class SWL wetland as defined at 15A NCAC 2B .0101(d)(4), wetlands that are contiguous to waters designated as ORW, HQW, SA, WS-I, WS-II or Trout, or wetlands that are contiguous to rivers designated as a North Carolina or National Wild and Scenic River for an activity which satisfies Subparagraphs (c)(2)-(5) of this Rule, and:

- (1) for wetlands classified as coastal wetlands pursuant to 15A NCAC 7H .0205:
 - (A) has no practical alternative as described in Paragraph (f) of this Rule; and
 - (B) is water dependent and requires access to water as a central element of its basic function, although, projects funded by government agencies may be exempted from this requirement; and
- (2) provides for replacement of existing uses through wetland mitigation under U.S. Army Corps of Engineers requirements, or as described in Subparagraphs (h)(1)-(7) and (9) of this Rule.

(e) The Director shall issue a certification upon determining that significant existing uses are not removed or degraded by a discharge to wetlands of exceptional state or national ecological significance including but not limited to Class UWL wetlands, and wetlands that have been documented to the satisfaction of the Director as habitat essential for the conservation of state or federally listed threatened or endangered species, provided that the wetlands have been so classified or designated prior to the date of application for certification or a draft environmental impact statement has been submitted to the Director, for an activity which satisfies Subparagraphs (c)(2)-(5) and (d)(1)-(2) and:

- (1) the wetland impacts are necessary for the proposed project to meet a demonstrated public need; and
- (2) provides for replacement of existing uses through wetland mitigation under U.S. Army Corps of Engineers requirements, or as described in Subparagraphs (h)(1)-(7) and (10) of this Rule.

(f) A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration or density of the proposed activity and all alternative designs the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters or wetlands.

(g) Minimization of impacts may be demonstrated by showing that the surface waters or wetlands are able to continue to support the existing uses after project completion, or that the impacts are required due to:

- (1) The spatial and dimensional requirements of the project; or
- (2) The location of any existing structural or natural features that may dictate the placement or configuration of the proposed project; or
- (3) The purpose of the project and how the purpose relates to placement, configuration or density.

(h) Replacement or mitigation of unavoidable losses of existing uses shall be reviewed in accordance with the following guidelines:

- (1) The Director shall coordinate mitigation requirements with other permitting agencies that are requiring mitigation for a specific project. Mitigation required by the U.S. Army Corps of Engineers shall be considered to constitute the mitigation required by the certification unless the Director determines that the mitigation proposal does not meet the criteria established in Subparagraph (6) of this Paragraph.
- (2) Mitigation shall not be required for impacts to Class WL wetlands of less than one acre.
- (3) Participation in wetland restoration programs coordinated by the Department of Environmental, Health, and Natural Resources shall be preferred to individual project mitigation whenever the Director finds that such participation is available and satisfies the other requirements of this Paragraph, unless the applicant can demonstrate that participation in these restoration programs is not practical. Mitigation sites approved by the U.S. Army Corps of Engineers shall be deemed to be consistent with the Department's restoration plan.
- (4) Acceptable methods of wetlands mitigation are listed below in the order of preference:
 - (A) Restoration: the re-establishment of wetland hydrology and vegetation in an area where it previously existed.
 - (B) Creation: the construction of a wetland in an area where wetlands did not exist in the recent past.
 - (C) Enhancement: increasing one or more of the functions of an existing wetland by manipulation of vegetation or hydrology.
 - (D) Preservation: protection of wetlands through purchase, donation or conveyance of a conservation easement to an appropriate government or non-profit agency for management.
- (5) Restoration is the preferred method of wetlands mitigation. The other methods may be utilized if the applicant can demonstrate that restoration is not practical or that the proposed alternative is the most ecologically viable method of replacing the lost functions and values.
- (6) All mitigation proposals shall provide for the replacement of wetland acres lost due to the proposed activity at a minimum of a 1:1 ratio through restoration or creation prior to utilizing enhancement or preservation to satisfy the mitigation requirements, unless the Director determines that the public good would be better served by other types of mitigation.
- (7) Wetlands mitigation shall be conducted based on the following ratios (acres mitigated to acres loss); 4:1, for wetlands located within 150 feet of the mean high water line or normal water level of any perennial or intermittent water body as shown by the most recently published version of the United States Geological Survey 1:24,000 (7.5 minute) scale topographical map; 2:1, for wetlands located between 150 feet and 1,000 feet from the mean high water line or normal water level of any perennial or intermittent water body as shown by the most recently published version of the United States Geological Survey 1:24,000 (7.5 minute) scale topographical map; and 1:1, for all other wetlands. For linear projects which impact less than 3 acres of wetlands the ratio shall be 2:1 regardless of the distance from surface waters. The above ratios apply only to restoration. The acres of required mitigation for the other types of mitigation shall be determined by multiplying the above ratios by 1.5 for creation, 2 for enhancement, and 5 for preservation. The above ratios do not apply to approved mitigation sites where the state and federal review agencies have approved credit/debit ratios. This Subparagraph shall not apply to general certifications until the Department has established a wetlands restoration program or until January 1, 1997, whichever occurs first.
- (8) Mitigation for impacts to wetlands designated in Paragraph (c) of this Rule shall be conducted within the same river basin and physiographic province when practical. Unavoidable losses of wetlands adjacent to waters classified as WS-III shall be replaced within the water supply watershed when practical.
- (9) Mitigation for impacts to wetlands designated in Paragraph (d) of this Rule shall be of the same wetland type and located within the same river sub-basin when practical. Mitigation

for impacts to wetlands adjacent to waters classified as WS-I or WS-II shall be replaced within the water supply watershed when practical.

- (10) Mitigation for impacts to wetlands designated in Paragraph (e) of this Rule shall be of the same wetland type and within the same watershed when practical.
 - (i) The Director shall not duplicate the site-specific application of any guidelines employed by the United State Army Corps of Engineers in evaluating permit applications under 33 U.S.C. 1344 and applicable federal regulations.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c); 143B-282(1)(u);
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Eff. October 1, 1996.*

15A NCAC 02H .0507 ISSUANCE OF CERTIFICATION

(a) Time Limit for Final Action on Certification Application. All applications for certification shall be granted or denied within 60 days after receipt at the offices of the Director in Raleigh, North Carolina. Failure to take final action within 60 days shall result in a waiver of the certification requirement by the Director, unless:

- (1) The applicant agrees, in writing, to a longer period;
- (2) Final decision is to be made pursuant to a public hearing;
- (3) Applicant fails to furnish information necessary to the Director's decision;
- (4) Applicant refuses the staff access to its records or premises for the purpose of gathering information necessary to the Director's decision or;
- (5) Information necessary to the Director's decision is unavailable.

(b) Time Limit for Final Action on Certification Application After Hearing. All applications for certification shall be granted or denied within 60 days after public hearing. Failure to take final action within 60 days shall result in a waiver of the certification requirement by the Director unless the applicant otherwise agrees in writing, or unless Subparagraph (a)(3), (4), or (5) of this Rule shall apply.

(c) Conditions of Certification. Any certification issued pursuant to this Rule may contain such conditions as the Director shall deem necessary to insure compliance with Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act Amendments.

(d) Modification or Revocation of Certification

- (1) Any certification issued pursuant to this Rule shall be subject to revocation or modification for violation of conditions of 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act Amendments.
- (2) Any certification issued pursuant to this Rule shall be subject to revocation or modification upon a determination that information contained in the application or presented in support thereof is incorrect or if conditions under which the certification was made have changed.

(e) Notification of Unapproved Application. In the event that the Director denies the application for certification or for any reason is unable to approve the application, the Director shall so notify the applicant by certified or registered mail, return receipt requested, specifying in such notification the reasons for the denial or inability to approve; and a copy of the notification shall be mailed to the appropriate federal licensing or permitting agency and EPA.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(c); 143B-282(1)(u);
Eff. February 1, 1976;
Amended Eff. July 1, 1988; December 1, 1984;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Recodified from 15A NCAC 2H .0504 Eff. October 1, 1996;
Amended Eff. October 1, 1996.*

Appendix 8

South Carolina Department of Health and Environmental Control Water Quality Certification Rules (R.61-101)

61-101. Water Quality Certification.

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Statutory Authority: Sections 48-1-30 and 48-1-50 of the 1976 code.

Subject: Water Quality Certification of Activities Requiring Federal Licenses or Permits Pursuant to Section 401 of the Federal Clean Water Act or State Permits

61-101. Water Quality Certification.

A. GENERAL

1. This regulation establishes procedures and policies for implementing State water quality certification requirements of Section 401 of the Clean Water Act, 33 U.S.C. Section 1341.
2. Any applicant for a Federal license or permit to conduct any activity which during construction or operation may result in any discharge to navigable waters is required by Federal law to first obtain a certification from the Department. Potential applicants are encouraged to contact the Department prior to submitting an application. Federal law provides that no Federal license or permit is to be granted until such certification is obtained. Federal permits or licenses for which certification is required as determined by the Federal agency include but are not necessarily limited to:
 - (a) individual or general Federal permits issued pursuant to Section 404 of the Clean Water Act, 33 U.S.C. Section 1344.
 - (b) Federal permits issued pursuant to Sections 9 and 10 of the Federal River and Harbor Act, 33 U.S.C. Sections 401 and 403.
 - (c) permits or licenses issued by the Federal Energy Regulatory Commission, 16 U.S.C. Section 1791, et seq

3. The Department may issue, deny, or revoke general certifications for categories of activities or for activities specified in Federal nationwide or general dredge and fill permits pursuant to Federal law or regulations. Such general certifications are subject to the same process as individual certifications.
4. Any certification issued by the Department shall specify where appropriate that any such discharge will comply with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act. If there is not an applicable effluent limit or standard under such sections, the Department will so certify. The Department shall also certify that there is reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards regulations. No certification will be issued if such assurance is not provided.
5. Any certification issued by the Department shall also set forth any limitations, conditions, or monitoring requirements necessary to assure maintenance of classified or existing water uses and standards and compliance with other requirements of these regulations or other appropriate requirements of State law.
6. The Department is required by Federal law to issue, deny, or waive certification for Federal licenses or permits within one (1) year of acceptance of a completed application unless processing of the application is suspended. If the Federal permitting or licensing agency suspends processing of the application on request by the applicant or the Department or of its own volition, suspension of processing of application for certification will also occur, unless specified otherwise in writing by the Department. Unless otherwise suspended or specified in this regulation, the Department shall issue a proposed decision on all applications within 180 days of acceptance or an application.
7. For Federal permits that require both a water quality certification and a coastal zone consistency certification, the coastal zone consistency certification determination shall be issued as a component of, and concurrently with, the water quality certification, according to the administrative procedures set forth in this regulation, and in accordance with the management policies of the S.C. Coastal Management Program and applicable laws and regulations. In these instances, the water quality certification will serve also as the coastal zone consistency certification.
8. The Department will not issue a separate 401 water quality certification for an activity which requires a direct permit for alteration of the critical area of the coastal zone pursuant to applicable regulations governing issuance of permits for alteration of the critical area of the coastal zone. The Department will process permit applications pursuant to applicable regulations governing issuance of permits for alteration of the critical area of the coastal zone with coordination and input from appropriate staff regarding water quality impacts. The direct permit will serve as the 401 water quality certification for an associated Federal permit.
9. If an activity also requires a permit for construction in State navigable waters pursuant to applicable laws and regulations, the review for the water quality certification will consider issues of that permit and the Department will not issue a separate permit for construction in State navigable waters. The certification will serve as the permit.

B. DEFINITIONS

Other than those terms defined below, any term used in this regulation shall be the same as defined in Section 48-1-10 or Regulation 61-68 of the Code of Laws, 1976.

1. "**Board**" means the Board of the Department of Health and Environmental Control.
2. "**Certification**" means certification as required under Section 401 of the Clean Water Act, 33 U.S.C. Section 1341.
3. "**Commissioner**" means the Commissioner of the Department of Health and Environmental Control.
4. "**Department**" means the Department of Health and Environmental Control.

C. APPLICATIONS

1. Any applicant for certification needed for a Federal license or permit must present a complete application to the Department in a manner specified by the Department. Federal application forms or forms provided by the Department will be accepted. Upon receipt of an application, the Department may require additional information to make the application complete. The Department will accept a public notice issued by the Federal permitting or licensing agency as application for certification if it contains sufficient information. Generally, the date of receipt of the public notice will be considered the date of application for certification. As a minimum the application must contain the following information:

- (a) the name, address, phone numbers, principal place of business of the applicant and, if applicable, the name and address of the agent for the applicant.
- (b) a complete description of the proposed permitted activity, including the location, affected waterbody(s), purpose, and intent of the project; maps, drawings, and plans sufficient for review purposes (detailed engineering plans are not required).
- (c) a description of all proposed activities reasonably associated with the proposed permitted project either directly or indirectly, including planned or proposed future development that relate to water quality considerations.
- (d) a description of the composition, source, and quantity of any material to be dredged or used as fill and a description of the area to be impacted, including the area of fill in acres.
- (e) the method of dredging or filling and specific plans for disposal and control of dredge spoils.
- (f) the names and addresses of adjacent property owners.

2. If the Department does not request additional information within ten (10) days of receipt of the application or joint public notice, the application will be deemed complete for processing; however, additional information may still be requested of the applicant within sixty (60) days of receipt of the application.

3. The Department may require the applicant to provide water quality monitoring data, water quality modeling results, or other environmental assessment related to factors in Article F.3 prior to accepting or processing the application and assessing the impacts of the proposed activity.

4. When the Department requests additional information it will specify a time for submittal of such information. If the information is not timely submitted and is necessary for reaching a certification decision, certification will be denied without prejudice or processing will be suspended upon notification to the applicant by the Department. Any subsequent resubmittal will be considered a new application.

D. PUBLIC NOTICE

1. Public notice is required of all applications for certification of Federal licenses or permits. When consistent with procedures herein and practical, joint public notice procedures with Federal or State agencies will be used to facilitate processing.

2. The public notice of application shall provide a reasonable period of time, normally thirty (30) days from the date of notice within which interested persons may submit their views and information concerning the certification application to the Department.

3. If the Department determines that an application is of a type that is routinely granted and the impacts are minor, the Department may reduce the notice period to fifteen (15) days. If the Department determines that an application involves a major activity, the notice period may be extended up to sixty (60) days from the date of the initial public notice.

4. Public notice of the application shall be by each of the following methods:

(a) by the Department's mailing a copy of the Notice of Application to:

1. the applicant.
2. any agency with jurisdiction over or interest in the activity or disposal site.
3. owners or residents of property adjoining the area of the proposed activity as identified in the application.
4. newspapers of local and statewide interest in the area.
5. any adjacent State agency of North Carolina or Georgia with jurisdiction over or interest in common waters affected by the proposed activity.
6. anyone who has specifically requested copies of public notices. The list of such person will be updated periodically and persons deleted who fail to respond to normal Department requests to identify continued interest. Nongovernmental interests out-of-state may be charged an annual fee of \$25.00 for notices.

(b) by publication by the applicant of the Notice of Application in a newspaper of local or general circulation reasonably expected to cover the area affected by the activity. Such publication by the applicant shall contain sufficient information for the reader to understand the location, nature, and extent of the proposed activity and a contact for

further information. The applicant shall provide the Department with an affidavit of publication from the newspaper within fifteen (15) days of publication.

(c) the Department will coordinate with other regulatory agencies and develop joint procedures for publication of notices of applications where feasible to minimize duplication.

E. PUBLIC HEARING

1. Any person may request a public informational hearing during the initial comment period discussed in Article D.2. and D.4. above. Requests shall be in writing and shall state the nature of the issues to be raised at the hearing.

2. The Department shall hold a public informational hearing whenever twenty (20) or more individual written requests are received during the public comment period and which raise water quality and classified use issues. A hearing may also be held whenever the Department staff determines that it may be useful in reaching a decision on an application. Such hearing will be conducted by Department staff personnel.

3. All public hearings shall be reported verbatim. A copy of the transcript shall be made available for public inspection.

4. The public comment period on an application will automatically be extended to fifteen (15) days past the date of the hearing. Further extensions may be granted at the discretion of the hearing officer.

5. The Department will coordinate with other regulatory agencies and conduct joint public hearings where feasible.

F. SCOPE OF REVIEW FOR APPLICATION DECISIONS

1. The Department shall prepare a written assessment on each proposed activity requiring a Federal license or permit. This assessment shall address the water quality impacts of the project and will make conclusions concerning compliance with water quality standards, protection of classified uses, and related water quality impacts. Such assessment shall be available to the applicant and to the public upon request.

2. A certification shall be issued if the applicant has demonstrated that the project is consistent with the provisions of these regulations; the State Water Quality Standards, R. 61-68; and the Federal Clean Water Act, 33 U.S.C. 1341, and regulations promulgated thereunder by the U.S. Environmental Protection Agency.

3. In assessing the water quality impacts of the project, the Department will address and consider the following factors:

(a) whether the activity is water dependent and the intended purpose of the activity;

(b) whether there are feasible alternatives to the activity;

(c) all potential water quality impacts of the project, both direct and indirect, over the life of the project including:

- (1) impact on existing and classified water uses;
- (2) physical, chemical, and biological impacts, including cumulative impacts;
- (3) the effect on circulation patterns and water movement;
- (4) the cumulative impacts of the proposed activity and reasonably foreseeable similar activities of the applicant and others.

4. Certification of the activities listed below will be issued when there are no feasible alternatives. When issuing certification for such activities, the Department shall condition the certification upon compliance with all measures necessary to minimize adverse effects, including stormwater management. The Department shall issue proposed certification decisions on such applications within sixty (60) days of acceptance of the application unless otherwise suspended or in accordance with State permitting agency procedures. The Department will also attempt to issue general certifications for such activities.

- (a) public boat ramps to enhance recreational use of waters.
- (b) filling necessary for public highways or bridges.
- (c) filling or disturbances to facilitate construction of electric transmission lines or other public utility crossings, including those of rural electric cooperatives.
- (d) dredging and filling related to maintenance of Federal or State navigational channels and ports.
- (e) activities utilizing Best Management Practices (BMP) which are part of an established on-going farming, ranching, aquaculture, or silviculture operation.
- (f) public water supplies.

5. Certification will be denied if:

- (a) the proposed activity permanently alters the aquatic ecosystem in the vicinity of the project such that its functions and values are eliminated or impaired;
- (b) there is a feasible alternative to the activity, which reduces adverse consequences on water quality and classified uses;
- (c) the proposed activity adversely impacts waters containing State or Federally recognized rare, threatened, or endangered species;
- (d) the proposed activity adversely impacts special or unique habitats, such as National Wild and Scenic Rivers, National Estuarine Research Reserves, or National Ecological Preserves, or designated State Scenic Rivers;

6. Certification will not be issued unless the Department is assured appropriate and practical steps including stormwater management will be taken to minimize adverse impacts on water quality and the aquatic ecosystem.

7. After-the-fact certifications will be reviewed under the same standards as normal applications; however, the Department may require restoration and/or other actions as a condition of certification. The applicant in such cases shall have the burden of proving the original baseline conditions, and certification may be denied in the absence of such proof.

G. NOTICE OF PROPOSED DECISIONS AND ADJUDICATORY HEARINGS FOR CERTIFICATIONS FOR FEDERAL LICENSES OR PERMITS

1. The Department shall issue a notice of proposed decision on application for certification, including any proposed conditions. Such notice shall advise of availability of the staff assessment and related file information. Such notice shall be mailed to:

- (a) the applicant;
- (b) agencies having jurisdiction or interest over the disposal site or activity site;
- (c) owners or residents of property adjoining the area of the proposed activity; and
- (d) those persons providing comment in response to the initial notice of application.

2. Persons with legal standing to contest the certification shall have rights to appeal the decision.

3. A person desiring to appeal a determination must submit a written request for an adjudicatory hearing within fifteen days of notice of the determination. The request must set forth the manner in which the person requesting the hearing would be injured by issuance of the certification. If no appeal of the proposed decision is timely received, the proposed decision of the Department shall become final.

4. Upon timely request for a hearing, the matter shall be heard as a "contested case" under the South Carolina Administrative Procedures Act, and shall be processed according to law. Determinations of whether a person has legal standing to contest a determination shall be made in the course of the contested case proceeding.

5. Appeals of a certification which include coastal zone consistency certification will be heard according to the above procedures unless the appeal is based exclusively on a coastal zone management issue. In that case the appeal will be heard according to the procedures for appeals of coastal zone consistency certifications.

6. Appeals of a certification included in the direct permit for alteration of the critical area of the coastal zone will be heard as part of that permit appeal according to the procedures for appeals of direct permits for alteration of the critical area of the coastal zone.

H. ENFORCEMENT OF CERTIFICATION DECISIONS AND CONDITIONS

1. Any certification condition is intended to become a condition of the Federal or State license or permit as specified in Federal or State law.

2. Certification conditions which are included as conditions of such license or permit are subject to enforcement mechanisms available to the Federal or State agency issuing the license or permit.

Other mechanisms under State law may also be used to correct or prevent adverse water quality impacts from construction or operation of activities for which certification has been issued.

3. The Department may conduct inspections for determining compliance with certification conditions.

Appendix 9

N.C. Division of Water Quality Fees

Section 143-214.3D(e)

Major Water Quality Certification: (defined as those with greater than or equal to one acre of wetland or water fill or equal to 150 feet of stream impact).....\$475.00
Express Review Fee of Major.....\$2000.00

Minor Water Quality Certification: (defined as less than one acre of wetland or less than 150 feet of stream impact).....\$200.00
Express Review Fee of Minor.....\$1000.00

Please note that NC requires fees for riparian buffer authorizations, isolated wetlands (general permit), stormwater management plan review/approval, stream original and intermittent/perennial determinations, and isolated wetland determinations. Fees are additive. However, fees for stormwater review are not additive. This review is for a Stormwater Management Plan that is not submitted with the 401 Water Quality Certification Application. Also, the Division considers stream impacts to be length rather than area in all cases regardless of Individual versus Nationwide permit status or significant versus insignificant channel.

Appendix 10

South Carolina Department of Health and Environmental Control (Section 48-2-50)

- (i) Certification of major activities requiring federal or state permits.....\$1,688
 - (ii) Certification of minor activities requiring federal or state permits.....\$255
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Appendix 11

Alabama Department of Environmental Management Fees (Chapter 335-1-6)

335-1-6.05 “Any person making application for the issuance, reissuance or modification of a water quality certification pursuant to section 401 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1341, and/or making request for a permit or consistency determination pursuant to Chapter 335-8-1, shall be subject to the highest applicable fee as provided in Fee Schedule B or F, as appropriate.”

FEE SCHEDULE B COASTAL USE PERMITS STATEWIDE WATER QUALITY CERTIFICATION AND PROJECT REVIEWS

Type of Activity Fee

Commercial and/or Residential Development

- a) Commercial and Residential Development (335-8-2-.11) greater than 5 acres and less than 25 acres in size. \$3,815
- b) Commercial and Residential Development (335-8-2-.11) 25 acres or greater and less than 100 acres in size. \$8,060
- c) Commercial and Residential Development (335-8-2-.11) 100 acres or greater in size. \$10,950
- Groundwater extraction from a well having capacity of 50 gpm or more (335-8-2-.09). \$1,690

Construction on Beaches and Dunes (335-8-2-.08)

- a) 1 single family dwelling or 1 duplex. \$560
- b) 2 single family dwellings or 2 duplexes. \$740
- c) Commercial (non-residential) structure, multi-unit residential structure having more than 2 units, or any other combination of living units not covered under a) or b) above. \$7,380
- d) Hardened erosion control structure, including retaining walls, seawalls, bulkheads and similar structure, or the placement of rip-rap. \$860

Beach Nourishment Projects on Gulf Beaches

- a) Gulf Beach Nourishment Project filling less than 1,000 square feet of State waterbottoms. \$800
- b) Gulf Beach Nourishment Project filling 1,000 square feet to 100,000 square feet of State waterbottoms. \$1,600

c) Gulf Beach Nourishment Project filling greater than 100,000 square feet of State waterbottoms.	\$2,950
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Projects Impacting Wetlands

a) Project involving the dredging or filling of less than 1,000 square feet of wetlands.	\$890
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b) Project involving the dredging or filling of 1,000 square feet or more of wetlands.	\$1,790
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c) Pile Supported residential, multifamily or commercial structure (does not include piers, walkways, gazebos).	\$1,665
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Projects Impacting Water Bottoms

a) Project involving the filling of less than 1,000 square feet of water bottom.	\$895
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b) Project involving the filling of 1,000 square feet or more of water bottom.	\$1,790
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c) Project involving the dredging of less than 10,000 cubic yards of material from the water bottom.	\$895
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d) Project involving the dredging of 10,000 cubic yards to 100,000 cubic yards of material from the water bottom.	\$1,790
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e) Project involving the dredging of greater than 100,000 cubic yards of material from the water bottom.	\$3,320
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f) Project which involves the construction of coastal or inland marinas, canals, or creek relocation or modification.	\$1,790
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g) Raised creek crossing.	\$340
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Shoreline Stabilization of Non Gulf-Fronting Properties

a) Shoreline stabilization project involving less than 200 feet of shoreline stabilization, including bulkhead construction or placement of rip-rap.	\$340
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b) Shoreline stabilization project involving greater than 200 feet of shoreline stabilization including bulkhead construction or placement of rip-rap.	\$560
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Groin, jetty, and/or other sediment catching shoreline structure.	\$710
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Construction of pile supported pier, dock, boardwalk, or other similar structure.	\$340
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Siting, construction and operation of energy facility (335-8-2-.10).	\$2,770
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Mitigation bank project.	\$3,690
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State agency permits subject to review (335-8-1-.08), not otherwise specified in Schedule B.			\$710
Federal activity, license, or permits (335-8-1-.09, -.10) not otherwise specified in Schedule B.			\$710
Project requiring certification for a Federal Energy Regulatory Commission permit or authorization.			\$2,770
All other projects not otherwise specified in Schedule B which are subject to ADEM's Division 8 regulations.			\$340
Modifications, including extensions, not requiring public notice.			\$340
Modifications requiring public notice shall be one-half the fee listed in schedule B but in no case less than \$340.	1/2 or		\$340
Additive fee for variance request.			\$1,385

**FEE SCHEDULE F
CONSTRUCTION STORMWATER COMPLIANCE AND NPDES
REGISTRATION/AUTHORIZATION PROGRAM**

Construction Materials Non-Coal Non-Metallic Mining, Excavation, Borrow, Disturbance, Development Dry Processing Storage, and Transloading Sites Less Than Five Acres Base Annual and Additive Registration and General Permit Authorization Fees.

Description	Base Annual Registration, Authorization Fee	Major Modification Fee 1/	Tier 1 Water Fee Additive Increment Fee 2/
Base Fee – Sites less than 5 acres.			
1. Sites 5 acres and greater require Individual NPDES Permit Coverage	\$340	\$215	\$155
Construction Base Annual and Additive Registration and General Permit Authorization Fees			
1. Base Fee – Less than 5 acres	\$215	\$215	\$155
2. Base Fee – 5 acres up to 10 acres	\$340	\$215	\$155
3. Base Fee – 10 acres up to 25 acres	\$525	\$215	\$155
4. Base Fee – 25 acres up to 50 acres	\$705	\$215	\$155
5. Base Fee – 50 acres up to 75 acres	\$895	\$215	\$155
6. Base Fee – 75 acres up to 100 acres	\$1,075	\$215	\$155
7. Base Fee – Greater than 100 acres	\$1,265	\$215	\$155

1/ A Major Modification Additive Increment Fee is required for a request for Major Modification of an existing registration approval or authorization. The increment fee is additive as the disturbed area expands or the permitted area is modified from an existing permitted category through subsequent category(s) and when a new receiving waterbody or waterbody segment is added that was not identified on the NOR/NOI upon which existing permit coverage approval was granted.

2/ An Impacted Watershed Additive Increment Fee, required for all registrations/ authorizations for projects discharging to any Tier 1 water, shall be submitted with each initial registration/authorization request, and each Major Modification Request, and each subsequent annual registration/authorization request. The increment fee is additive as the disturbed area expands or the permitted area is modified from an existing permitted category through subsequent category(s) and when a discharge to a Tier 1 water is added that was not identified on the NOR/NOI upon which existing permit coverage approval was granted.

<u>Description</u>	<u>Annual Registration/Authorization</u>	<u>Major Modification</u>
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<u>Additive Greenfield Fee</u>	\$680 -----	
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A Greenfield Fee is not required if continuing education certification acceptable to the Department is submitted with each initial registration/authorization request, each annual registration/authorization request, or each Major Modification Request, and as otherwise required by the Director or his designee.

Initial Registration Fee Applicability

The initial annual registration fee required under this fee schedule shall not apply to the initial registration request/approval for a construction site granted authorization under General Permit ALG610000 in writing by the Department that is subject to and remits the authorization fee required pursuant to Fee Schedule F, after the effective date of Fee Schedule F and prior to the effective date of the ADEM Phase 2 construction stormwater management program.

Credit/Debit Card Processing Fee

If approved by the Department, any fee paid by credit/debit card in conjunction with electronic submittal of a registration/authorization request is subject to an additional convenience charge required to electronically process fee transaction.

Up-Front Payment of Fees for Extended Duration Permit Coverage

Annual Base and Additive Fees for registrations/authorizations and major modifications can be tabulated and paid for annual coverage increments at one time for up to a maximum 5-year coverage duration.

Appendix 12

Mississippi Department of Marine Resources

This agency oversees the three coastal counties of Hancock, Harrison, and Jackson counties. The agency has joint jurisdiction with the Corps of Engineers over proposed wetland alterations in the state's coastal zone. The application fees are generic for the overall wetland permits in these counties.

Application fee for single-family residential.....	\$50.00
Application fee for commercial.....	\$500.00

Appendix 13

Virginia Department of Environmental Quality Permit Application Fees

The following permit application fees are calculated using the project's **total permanent and temporary** impacts to wetlands, open waters, or streams. In some cases, such as with stream impacts, the square footage must be calculated first, then converted to an acreage in order to determine the fee.

The permit application fee is required as part of a complete application, and **no permit or permit authorization will be granted until the fee is received and deposited** by DEQ.

Individual Permits

Issuance, VWP Individual / Surface Water Impacts (Wetlands, Streams, and/or Open Water):

\$2,400 + \$220 for each, 1/10 acre (4,356 sq.ft.) increment, or portion thereof, over two acres (87,120 sq.ft.), up to \$60,000 maximum

Modification, VWP Individual / Surface Water Impacts (Wetlands, Streams, and/or Open Water):

\$1,200 + \$110 for each, 1/10 acre (4,356 sq.ft.) increment, or portion thereof, over two acres (87,120 sq.ft.), up to \$30,000 maximum

Issuance, VWP Individual / Minimum Instream Flow (MIF) - Withdrawals => 3,000,000 gallons on any day:

\$25,000

Issuance, VWP Individual / Minimum Instream Flow (MIF) - Withdrawals between 2,000,000 and 2,999,999 gallons on any day:

\$20,000

Issuance, VWP Individual / Minimum Instream Flow (MIF) - Withdrawals between 1,000,000 and 1,999,999 gallons on any day:

\$15,000

Issuance, VWP Individual / Minimum Instream Flow (MIF) - Withdrawals < 1,000,000 gallons on any day that do not otherwise qualify for a VWP General Permit for water withdrawals*:

\$10,000

Modification, all types of VWP Individual / Minimum Instream Flow (MIF) - Withdrawals:

\$5,000

Issuance, VWP Individual / Reservoir - Major:
\$35,000

Issuance, VWP Individual / Reservoir - Minor:
\$25,000

Modification, all types of VWP Individual / Reservoir:
\$12,500

Issuance, VWP Individual / Nonmetallic Mineral Mining:

\$2,400 + \$220 for each, 1/10 acre (4,356 sq.ft.) increment, or portion thereof, over two acres (87,120 sq.ft.), up to \$7,500 maximum

Modification, VWP Individual / Nonmetallic Mineral Mining:

\$1,200 + \$110 for each, 1/10 acre (4,356 sq.ft.) increment, or portion thereof, over two acres (87,120 sq.ft.), up to \$3,750 maximum

General Permit Authorizations

Issuance, VWP General / Less Than 1/10 acre (4,356 sq.ft.) of Surface Water Impacts (Wetlands, Streams, and/or Open Water):
\$0

Issuance, VWP General / 1/10 acre (4,356 sq.ft.) to 1/2 acre (21,780 sq.ft.) of Surface Water Impacts (Wetlands, Streams, and/or Open Water):
\$600

Issuance, VWP General / Greater Than 1/2 acre (21,780 sq.ft.) to one acre (43,560 sq.ft.) of Surface Water Impacts (Wetlands, Streams, and/or Open Water):
\$1,200

Issuance, VWP General / Greater Than one acre (43,560 sq.ft.) to two acres (87,120 sq.ft.) of Surface Water Impacts (Wetlands, Streams, and/or Open Water):
\$1,200 + \$120 for each 1/10 acre (4,356 sq.ft.) increment, or portion thereof, over one acre (43,560 sq.ft.), up to \$2,400 maximum

*Issuance, VWP General / Minimum Instream Flow (MIF) or Reservoir - Water Withdrawals and/or Pond Construction:
\$2,400

* The VWP General Permit WP5 for Minor Surface Water Withdrawals Regulation 9 VAC 25-800 has not been adopted at this time.

Appendix 14

Oregon Department of Environmental Quality Fees (ORS 340-048-0055)

ORS 340-048-0055(2):

Fees for removal of materials from waters of the state are based on cubic yard and varies of 500-9,999 cubic yards.....\$950

10,000 to 99,000 cubic yards..... \$2,800

100,000 to 999,000 cubic yards.....\$4,700

1,000,000 to 9,999,999 cubic yards.....\$14,000

10,000,000 cubic yards or more.....\$16,000 or

amount specified in section 7 of their rule, whichever is greater.

Fees above are reduced by 25% in those cases where the Dredged Material Evaluation Framework (DMEF) exclusion criteria for sediment testing are met.

ORS 340-048-0055(4):

Fees for filling of waters of the state are as follows:

2 to 4.99 acres.....\$950

5 to 9.99 acres.....\$2,800

10 to 14.99 acres.....\$4,700; and

15 acres or more.....\$8,000 or the

amount specified in section (7) of rule, whichever is greater.

Only one certification fee is required for a project that includes both removal of material under section (2) of this rule and filling of material under section (4) of this rule in the immediate area of excavation. The higher of the two fees applies.

ORS 340-048-0055(7):

For activities described in subsections (2)(e) and (4)(d) of this rule and activities not elsewhere classified in this rule, fees will be based on the estimated amount of months of full-time staff equivalent (FTE) required to certify the activity multiplied by \$8,000 (number of months x \$8,000 = fee amount). The estimate of required FTE months will be made by the department. There is no fee for activities requiring less than 2 weeks of FTE.

ORS 340-048-0055(8):

Fees for certification of hydromodification projects must be paid in accordance with Oregon's ORS 468.065(3).

ORS 340-048-0055(12):

Fees are not charged for activities:

- (a) Requiring an operating permit for surface mining under ORS chapter 517.
- (b) Relating to commercial sand and gravel removal operations;
- (c) Involving removal of less than 500 cubic yards of material; or
- (d) Involving a fill of less than two acres.

